## SEARCH REQUEST FORM

Scientific and Technical Information Center

1/40	1.57		2/11/23
Requester's Full Name: TTKC  Art Unit: 1751 Phone N	Number 30 5-559	Examiner #: Date: -	763
Mail Box and Bldg/Room Location	1: 9836 Resi	ults Format Preferred (circle): PAPEI	NOISK E-MAIL
If more than one search is subm	itted, please prioriti *******	ze searches in order of need. **************************	******
Please provide a detailed statement of the	search topic, and describe seywords, synonyms, acros that may have a special m	as specifically as possible the subject matte nyms, and registry numbers, and combine w eaning. Give examples or relevant citations	r to be searched.
Title of Invention:		Bh Wass	
Inventors (please provide full names):			
(Promo Provinciano de la companya de la compan			
Earliest Priority Filing Date:			
		 (parent, child, divisional, or issued patent num	bers) along with the
appropriate serial number.	ac an personen injeriorie.	,	
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STAFF USE ONLY	Type of Search	Vendors and cost where appl	icable
Searcher:	NA Sequence (#)	STN	
Searcher Phone #: 30 3172	AA Sequence (#)	Dialog	
Searcher Location: E/C/) 00	Structure (#)	Questel/Orbit	
Date Searcher Picked Up:	Bibliographic	Dr.Link	
Date Completed:	Litigation	Lexis/Nexis	
Searcher Prep & Review Time: 13 min	Fulltext	Sequence Systems	
Clerical Prep Time:	Patent Family	WWW/Internet	
Online Time:	Other	Other (specify)	
PTO-1590 (8-01)		BEST AVAILAB	LE COPY



## EIC 1700 / LUTRELLE F. PARKER LAW LIBRARY



Scientific and Jechnical Information Center

# Search Results Feedback Form

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact the searcher whose name is circled below.

Kathleen Fuller 308-4290

John Calve. 308-4139

Barba Koroma 305-3542

Eric Linnell 308-4143

All searchers are located in the library in CP3/4 3D62

# **EIC1700**

Drop off completed forms in CP3/4 - 3D62.

# Search Results Feedback Form (Optional)



The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact the EIC searcher who conducted the search or contact:

Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62

×	I am an examiner in Workgroup: Example: 1713	From Let
>	Relevant prior art found, search results used as follows:	
	102 rejection	
	103 rejection	
	Cited as being of interest.	
	Helped examiner better understand the invention.	* 1 - ee
	Helped examiner better understand the state of the art in their technology.	
	Types of relevant prior art found:	
	Foreign Patent(s)	
•	Non-Patent Literature (journal articles, conference proceedings, new product announcements etc.)	
>	Relevant prior art not found:	
	Results verified the lack of relevant prior art (helped determine patentability).	· .
	Search results were not useful in determining patentability or understanding the inv	ention.
thei	r Comments:	

=> file reg
FILE 'REGISTRY' ENTERED AT 14:39:35 ON 12 FEB 2003
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 FEB 2003 HIGHEST RN 488780-79-6 DICTIONARY FILE UPDATES: 11 FEB 2003 HIGHEST RN 488780-79-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> file caplus FILE 'CAPLUS' ENTERED AT 14:39:39 ON 12 FEB 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 12 Feb 2003 VOL 138 ISS 7 FILE LAST UPDATED: 11 Feb 2003 (20030211/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> d que
         157220) SEA FILE=CAPLUS ABB=ON PLU=ON ACRYLATE#
L1
L2
         178831) SEA FILE=CAPLUS ABB=ON PLU=ON METHACRYLATE#
         40244) SEA FILE=CAPLUS ABB=ON PLU=ON N(2A) OXIDE# OR N-OXIDE#
L3
         272330) SEA FILE=REGISTRY ABB=ON PLU=ON PACR/PCT
L4
L5
         354972) SEA FILE=CAPLUS ABB=ON PLU=ON L4
         480485) SEA FILE=CAPLUS ABB=ON PLU=ON L5 OR L3 OR L2 OR L1
L6
            327) SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND (FABRIC OR TEXTILE) (5A) (
L7
                CARE OR ABRA?)
L8
            237 SEA FILE=CAPLUS ABB=ON PLU=ON L7 AND (ACRYLATE OR METHACRYLAT
                E OR ?ACRYLAMID? OR N(2A)OXIDE)
```

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L9
            145 SEA FILE=CAPLUS ABB=ON PLU=ON L8 AND (COMPOS? OR MIXTURE# OR
                INGREDIENT#)
L10
             32 SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND (SOFTEN? OR DYE?)
=> d ibib abs hitstr ind total 110
L10 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2003 ACS
                        2001:545942 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         135:138664
                        Compositions which prevent abrasive
TITLE:
                        color loss from denim fabric
INVENTOR(S):
                         Gordon, Neil James; Zhang, Shulin; Ceulemans, Raphael
                        Angeline Alfons; Coenen, Annick Hilda Rose
PATENT ASSIGNEE(S):
                         Procter + Gamble Company, USA
                         PCT Int. Appl., 51 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
    PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                    ----
                                          _____
                                         WO 2000-US8032 20000324
    WO 2001053600
                     A1 20010726
        W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
             US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                     A1 20020918
                                         EP 2000-916664
                                                           20000324
    EP 1240382
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
                                        US 2000-176585P P 20000118
PRIORITY APPLN. INFO.:
                                       WO 2000-US8032
                                                        W 20000324
    The fabric dye protection compns. comprise .gtoreq.1
AB
    denim fabric enhancing compds., which stops the loss of fabric dye
     from denim fabric. The compns. comprise (A) .apprx.0.1%
    polymer, copolymer, or mixts., the polymer or copolymer
    comprising .gtoreq.1 units having a cationic group and capable of
    attenuating and/or abating the loss of denim fabric dye, such as
    Sedipur CF803, and (B) the balance carriers and adjunct
     ingredients, optionally 0.1% fabric enhancing polyamine.
ΙT
     69418-26-4, Acrylamide-trimethylaminoethyl
    acrylate copolymer
    RL: TEM (Technical or engineered material use); USES (Uses)
        (compns. for denim which resists fading and color loss
        through abrasion)
RN
     69418-26-4 CAPLUS
     Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride,
CN
    polymer with 2-propenamide (9CI) (CA INDEX NAME)
    CM
          1
    CRN
         44992-01-0
```

KOROMA EIC1700

CMF C8 H16 N O2 . C1

Me3+N-CH2-CH2-O-C-- CH== CH2

Cl -

2 CM

79-06-1 CRN C3 H5 N O CMF

H2N-C-CH=CH2

IC ICM D06P001-52

ICS D06P005-06; D06P005-08

CC 40-6 (Textiles and Fibers)

cationic polymer denim enhancing compd color loss prevention ST

ΙT Polyamines

RL: TEM (Technical or engineered material use); USES (Uses) (compns. for denim which resists fading and color loss through abrasion)

IT Textiles

(denim; compns. for denim which resists fading and color loss

6711-48-4

7209-38-3,

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

through abrasion) 105-83-9 3855-32-1 4605-14-5 ΤТ

1,4-Piperazinedipropanamine 9003-39-8, Poly(vinylpyrrolidone)

26062-79-3, Poly(dimethyldiallyl ammonium chloride) 69418-26-4,

Acrylamide-trimethylaminoethyl acrylate copolymer

331764-96-6, Sedipur CF803 351415-98-0, 261729-40-2 261715-00-8

Sedipur CF 403 351415-99-1, Sedipur CF 104

RL: TEM (Technical or engineered material use); USES (Uses) (compns. for denim which resists fading and color loss

through abrasion) REFERENCE COUNT:

L10 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:

2000:314801 CAPLUS

DOCUMENT NUMBER:

132:310044

TITLE:

Fabric care compositions

having reduced fabric abrasion

INVENTOR(S):

Cauwberghs, Serge Gabriel Pierre Roger; Ceulemat Raphael Angeline Alfons; Gordon, Neil James

PATENT ASSIGNEE(S):

The Procter & Gamble Company, USA

SOURCE:

PCT Int. Appl., 51 pp.

DOCUMENT TYPE:

CODEN: PIXXD2 Patent

KOROMA EIC1700

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                    KIND DATE
                                       APPLICATION NO. DATE
    ______
                    ---- -----
                                        ______
                   A1 20000511 WO 1999-US24941 19991022
    WO 2000026331
        W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
            CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE,
            GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
            LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
            RO, RU, SD, SE, SG; SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US,
            UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                    BR 1999-14980 19991022
EP 1999-971446 19991022
    BR 9914980
                    A 20010814
                    A1 20010822
    EP 1124927
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
                    T2 20020903
                                         JP 2000-579704
                                                        19991022
    JP 2002528663
                                      US 1998-106759P P 19981102
PRIORITY APPLN. INFO.:
                                      US 1998-110310P P 19981130
                                      WO 1999-US24941 W 19991022
    The present invention relates to fabric enhancement compns.
```

AB The present invention relates to fabric enhancement compns. which provide reduced fabric abrasion damage. The compns. of the present invention comprise: a) one or more fabric abrasion polymers, the polymers comprising the following units: i) at least one monomeric unit comprising an amide moiety; ii) at least one monomeric unit comprising an N-oxide moiety; or iii) a polymer which contains at least one monomeric unit comprising an amide moiety and at least one monomeric unit comprising an N-oxide moiety; and b) the balance carriers and fabric conditioning or fabric enhancement ingredients

. A fabric care compn. contained polyvinylpyrrolidone.

polyvinyipyilolidone.

IT 30581-59-0, Dimethylaminoethyl methacrylate

vinylpyrrolidone copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(fabric care compns. having reduced

fabric abrasion)

RN 30581-59-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel & \parallel \\ \text{Me}_2\text{N-CH}_2\text{--CH}_2\text{--O-C-C-Me} \end{array}$$

CM 2

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Page 5hardee793d
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CRN 88-12-0 CMF C6 H9 N O

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CH CH<sub>2</sub>
```

IC ICM C11D003-37 ICS C11D003-36

CC 46-5 (Surface Active Agents and Detergents)

ST abrasion resistance fabric care compn; polyvinylpyrrolidone fabric care compn

IT Fabric softeners

(fabric care compns. having reduced fabric abrasion)

IT 9003-39-8, Luviskol K90 30581-59-0, Dimethylaminoethyl methacrylate vinylpyrrolidone copolymer 113970-16-4, Poly(N-vinyl-4-methyl-2-oxazolidone) 182482-80-0, Polyvinyloxazolidone RL: TEM (Technical or engineered material use); USES (Uses)

(fabric care compns. having reduced

fabric abrasion)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 32 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1999:311083 CAPLUS

ACCESSION NUMBER: DOCUMENT NUMBER:

130:342773

TITLE:

Personal care compositions containing

organosiloxane emulsions and silicone functional

polymers

INVENTOR(S): Peffly, Marjorie Mossman; Bolich, Raymond Edward, Jr.;

Torgerson, Peter Marte; Midha, Sanjeev

PATENT ASSIGNEE(S): The Procter & Gamble Company, USA

SOURCE:

PCT Int. Appl., 59 pp.

DOCUMENT TYPE:

CODEN: PIXXD2
Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND DATE				Al	PPLI	CATI	o.	DATE					
WO 9922708		A1 19990514				WO 1998-IB1742 19981102											
	W:	AL,	AM,	AT,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,
		CZ,	DE,	DE,	DK,	DK,	EE,	EE,	ES,	FI,	FI,	GB,	GE,	GH,	GM,	HR,	HU,
		ID,	IL,	IS,	JΡ,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,
		MD,	MG,	MK,	MN,	MW,	MX,	NO,	ΝZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,
		SK,	SK,	SL,	ТJ,	TM,	TR,	TT,	UA,	UG,	UZ,	VN,	YU,	ZW,	AM,	ΑZ,	BY,
		,			- •	ТJ,											
	RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,	DK,	ES,
		FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,
						ML,											
US 6093410		A 20000725				US 1997-964325					19971105						
AU 9895552			A1 19990524				AU 1998-95552 19981102										

```
EP 1028704
                       Α1
                            20000823
                                           EP 1998-949184 19981102
     EP 1028704
                       В1
                            20020320
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
     BR 9815266
                       Α
                            20001010
                                           BR 1998-15266
                                                            19981102
     JP 2001521883
                       Т2
                            20011113
                                           JP 2000-518645
                                                             19981102
     AT 214590
                       Ε
                            20020415
                                           AT 1998-949184
                                                             19981102
     ZA 9810087
                       Α
                            19990505
                                           ZA 1998-10087
                                                             19981104
PRIORITY APPLN. INFO .:
                                        US 1997-964325
                                                        A 19971105
                                        WO 1998-IB1742
                                                         W 19981102
     Emulsion compns., suitable for personal care applications such
AΒ
     as hair styling, and other applications, are disclosed.
     compns. comprise: (a) a silicone functional polymer; (b) an
     organopolysiloxane emulsion contg. (i) a polyorganosiloxane dispersed as
     particles in the emulsion, the polyorganosiloxane having an av. particle
     size of <150 nm, and (ii) a surfactant system for dispersing the
     organopolysiloxane in the emulsion; (c) a carrier comprising .gtoreq.0.5 %
     of the compn., of a first solvent selected from the group
     consisting of water, water-sol. org. solvents, org. solvents which are
     strongly to moderately strong in hydrogen-bonding parameter, and
     mixts. thereof. Wherein the first solvent is other than C1-C3
     monohydric alc., C1-C3 ketone and C1-C3 ether, wherein the silicone
     functional polymer is present in an amt. effective to stabilize the
     emulsion in the personal care compn. An aftershave stick lotion
     contained SDA-40 ethanol 75, sodium stearate 6, glycerol 4, propylene
     glycol 3, perfume 0.3, menthol 0.1, distd. water 6 %, and a premix contg.
     Abil Si-6431 1, SDA-40 ethanol 1, distd. water 1, and DC2-1550 (silicone
     emulsion from Dow Corning) 2.5 %.
.IC
     ICM A61K007-48
     ICS A61K007-06; C08L083-04
     62-4 (Essential Oils and Cosmetics)
CC
ST
     cosmetic polysiloxane emulsion
ΙT
     Shaving preparations
        (aftershave; personal care compns. contq. organosiloxane
        emulsions and silicone functional polymers)
     Polysiloxanes, biological studies
ΙT
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (aminopropyl Me, hydroxy-terminated; personal care compns.
        contg. organosiloxane emulsions and silicone functional polymers)
TΤ
     Cosmetics
        (nail lacquers, removers; personal care compns. contq.
        organosiloxane emulsions and silicone functional polymers)
ΙT
     Fabric softeners
     Insect repellents
        (personal care compns. contq. organosiloxane
        emulsions and silicone functional polymers)
IT
     Polysiloxanes, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (polyacrylate-; personal care compns. contg. organosiloxane
        emulsions and silicone functional polymers)
TΤ
     Hair preparations
        (sprays; personal care compns. contg. organosiloxane
        emulsions and silicone functional polymers)
IT
     79-10-7D, Acrylic acid, polymers with Bu acrylate and
                                 97-86-9D, Isobutyl methacrylate,
     dimethylsiloxane macromer
     polymers with dimethylacrylamide and dimethylsiloxane macromer
     141-32-2D, Butyl acrylate, polymers with acrylic acid and
                                 1663-39-4D, tert-Butyl acrylate,
     dimethylsiloxane macromer
```

```
polymers with acrylic acid and dimethylsiloxane macromer
    N, N-Dimethylacrylamide, polymers with iso-Bu
                                                 9016-00-6D.
    methacrylate and dimethylsiloxane macromer
    Dimethylsilanediol homopolymer sru, macromers, polymers with acrylic acid
                     31900-57-9D, Dimethylsilanediol homopolymer,
    and Bu acrylate
    macromers, polymers with acrylic acid and Bu acrylate
     224319-14-6, Dow Corning 2-1845
                                     224433-62-9, Dow Corning 2-1550
    224433-67-4, Dow Corning 2-1716 224444-55-7, Abil Si 6431
    RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (personal care compns. contg. organosiloxane emulsions and
       silicone functional polymers)
                              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                        6
                              RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L10 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2003 ACS
                        1999:223006 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        130:254104
                        Dryer-added fabric softener
TITLE:
                        composition and product comprising chlorine
                        scavenger to provide color and other fabric appearance
                        benefits
INVENTOR(S):
                        Smith, John William; Corona, Alessandr, III; Trinh,
                        Toan; Wu, Ronghui; Swartley, Donald Marion
PATENT ASSIGNEE(S):
                        The Procter & Gamble Company, USA
                        PCT Int. Appl., 53 pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
    PATENT NO.
                     KIND
                           DATE
                                        APPLICATION NO. DATE
                    ____
                                         ______
                          _____
                                        WO 1998-IB1349 19980828
    WO 9915612
                     A1
                           19990401
        W: BR, CA, JP, MX
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
                                          CA 1998-2304870 19980828
    CA 2304870
                      AA
                           19990401
                                          EP 1998-938861 19980828
    EP 1017771
                     A1
                         20000712
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
                           20000725 BR 1998-12550 19980828
    BR 9812550
                     Α
                                          JP 2000-512907
                                                         19980828
    JP 2001517740
                      Т2
                           20011009
                                          US 1999-275844 19990324
    US 6046154
                     Α
                           20000404
                                          US 1999-275845 19990324
                           20000404
    US 6046155
                      Α
                                       US 1997-937904 A 19970925
PRIORITY APPLN. INFO.:
                                       WO 1998-IB1349 W 19980828
    The title compn. has optimal characteristics for providing good
AΒ
     coverage of fabrics that are treated, and optionally comprising .gtoreq.1
     fabric softener component, for imparting fabric appearance
    benefits such as a quaternary ammonium active. Dryer-added fabric
     softener compns. also contain a chelant and/or a Cl
     scavenger to protect colored fabrics from Cl in the next wash cycle.
     Dryer sheets were impregnated with a compn. contg. di(soft
     tallowoyloxyethyl)dimethylammonium Me sulfate 54, clay 10, 1:2
     stearyldimethylamine/triple pressed stearic acid 32, and
    N, N, N', N'-tetrakis(2-hydroxypropyl)ethylenediamine (Cl scavenger) 4%.
     9003-05-8, Polyacrylamide
ΙT
     RL: MOA (Modifier or additive use); USES (Uses)
```

```
(color care agent; dryer-added fabric
        softener compn. contg. chlorine scavenger to provide
        color and other fabric appearance benefits)
RN
     9003-05-8 CAPLUS
     2-Propenamide, homopolymer (9CI) (CA INDEX NAME)
CN
    CM
    CRN
         79-06-1
    CMF C3 H5 N O
H2N-C-CH-CH2
IC
    ICM C11D003-00
    ICS C11D001-62; C11D003-30; C11D003-37; C11D017-04; C11D003-02
     46-5 (Surface Active Agents and Detergents)
CC
    fabric softener dryer added; color care fabric
    softener; chelating agent color care fabric
     softener; amine color care fabric
     softener; chlorine scavenger color care fabric
    softener
ΙT
    Quaternary ammonium compounds, uses
    RL: TEM (Technical or engineered material use); USES (Uses)
        (actives with greater biodegradability than di(hydrogenated
        tallowalkyl)dimethylammonium Me sulfate; dryer-added fabric
        softener compn. contg. chlorine scavenger to provide
        color and other fabric appearance benefits)
    Amino acids, uses
IΤ
    RL: MOA (Modifier or additive use); USES (Uses)
        (color care agent; dryer-added fabric
        softener compn. contq. chlorine scavenger to provide
       color and other fabric appearance benefits)
ΙT
    Fabric softeners
        (dryer-added fabric softener compn. contg. chlorine
        scavenger to provide color and other fabric appearance benefits)
ΙT
    Polyamines
    Polyamines
    RL: MOA (Modifier or additive use); USES (Uses)
        (polyamide-, color care agent; dryer-added fabric
        softener compn. contq. chlorine scavenger to provide
        color and other fabric appearance benefits)
ΙT
    Polyamides, uses
    Polyamides, uses
    RL: MOA (Modifier or additive use); USES (Uses)
        (polyamine-, color care agent; dryer-added fabric
        softener compn. contg. chlorine scavenger to provide
        color and other fabric appearance benefits)
TΤ
    Amines, uses
    RL: MOA (Modifier or additive use); USES (Uses)
        (polyamines, nonpolymeric, color care agent; dryer-added
        fabric softener compn. contg. chlorine
        scavenger to provide color and other fabric appearance benefits)
    102-60-3, N, N, N', N'-Tetrakis (2-hydroxypropyl) ethylenediamine
IT
    RL: MOA (Modifier or additive use); USES (Uses)
        (Quadrol color care agent; dryer-added fabric
```

```
softener compn. contg. chlorine scavenger to provide
        color and other fabric appearance benefits)
     77-86-1, Tris(hydroxymethyl)aminomethane
ΙT
     Hexamethylenetetramine, uses 111-42-2, Diethanolamine, uses 124-28-7,
     Stearyldimethylamine 141-43-5, Monoethanolamine, uses 7632-50-0,
     Ammonium citrate 7783-20-2, Ammonium sulfate, uses 9002-98-6
     9003-05-8, Polyacrylamide
                               12124-97-9, Ammonium bromide
     12125-02-9, Ammonium chloride, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (color care agent; dryer-added fabric
        softener compn. contg. chlorine scavenger to provide
        color and other fabric appearance benefits)
                              THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                        8
                              RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L10 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2003 ACS
                        1999:223005 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        130:254103
                        Dryer-added fabric softener
TITLE:
                        composition to provide color and other fabric
                        appearance benefits
                         Smith, John William; Corona, Alessandro, III; Trinh,
INVENTOR(S):
                         Toan; Wu, Ronghui
                        The Procter & Gamble Company, USA
PATENT ASSIGNEE(S):
SOURCE:
                         PCT Int. Appl., 54 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                         APPLICATION NO. DATE
     PATENT NO.
                    KIND DATE
                                          _____
                           _____
     WO 9915611
                     A1
                           19990401
                                         WO 1998-IB1347 19980828
         W: BR, CA, JP, MX
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
     ZA 9808741
                           19990325
                                          ZA 1998-8741
                                                           19980923
PRIORITY APPLN. INFO.:
                                       US 1997-937536 A 19970925
OTHER SOURCE(S):
                        MARPAT 130:254103
     The title compn. has optimal characteristics for providing good
     coverage of fabrics that are treated, and optionally comprising .gtoreq.1
     fabric softener component, for imparting fabric appearance
     benefits such as a quaternary ammonium active. Dryer-added fabric
     softener compns. may also contain a chelant and/or a Cl
     scavenger to protect colored fabrics from Cl in the next wash cycle.
     Dryer sheets were impregnated with a compn. contg. di(soft
     tallowoyloxyethyl)dimethylammonium Me sulfate 48 with 25% 7018 FA
     stearic:palmitic acid (Industrene 7018), poly(vinylpyrrolidone),
     cyclodextrin complex, and perfume.
ΙT
     9003-05-8, Polyacrylamide
     RL: MOA (Modifier or additive use); USES (Uses)
        (color care agent; dryer-added fabric
        softener compn. usage to provide color and other
        fabric appearance benefits)
     9003-05-8 CAPLUS
RN
     2-Propenamide, homopolymer (9CI) (CA INDEX NAME)
CN
     CM
          1
```

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CRN 79-06-1
    CMF C3 H5 N O
    0
H_2N-C-CH=CH_2
    ICM C11D003-00
         C11D001-62; C11D003-30; C11D003-37; C11D017-04; C11D003-02
CC
     46-5 (Surface Active Agents and Detergents)
    fabric softener dryer added; color care fabric
    softener; chelating agent color care fabric
    softener; amine color care fabric
    softener; chlorine scavenger color care fabric
    softener
IT
    Amino acids, uses
    RL: MOA (Modifier or additive use); USES (Uses)
        (color care agent; dryer-added fabric
        softener compn. usage to provide color and other
        fabric appearance benefits)
IT
    Fabric softeners
        (dryer-added fabric softener compn. usage to
        provide color and other fabric appearance benefits)
ΙT
    Polyamines
     Polyamines
    RL: MOA (Modifier or additive use); USES (Uses)
        (polyamide-, color care agent; dryer-added fabric
        softener compn. usage to provide color and other
        fabric appearance benefits)
ΙT
    Polyamides, uses
    Polyamides, uses
    RL: MOA (Modifier or additive use); USES (Uses)
        (polyamine-, color care agent; dryer-added fabric
        softener compn. usage to provide color and other
        fabric appearance benefits)
TΤ
    Amines, uses
    RL: MOA (Modifier or additive use); USES (Uses)
        (polyamines, nonpolymeric, color care agent; dryer-added
        fabric softener compn. usage to provide
        color and other fabric appearance benefits)
    Quaternary ammonium compounds, uses
IT
    RL: TEM (Technical or engineered material use); USES (Uses)
        (tetraalkylammonium compds., actives with greater biodegradability than
        di(hydrogenated tallowalkyl)dimethylammonium Me sulfate; dryer-added
        fabric softener compn. usage to provide color and
        other fabric appearance benefits)
    102-60-3, N,N,N',N'-Tetrakis(2-hydroxypropyl)ethylenediamine
IT
    RL: MOA (Modifier or additive use); USES (Uses)
        (Quadrol color care agent; dryer-added fabric
        softener compn. usage to provide color and other
        fabric appearance benefits)
                                                100-97-0,
    77-86-1, Tris(hydroxymethyl)aminomethane
IT
    Hexamethylenetetramine, uses 111-42-2, Diethanolamine, uses
                                                                     124 - 28 - 7
```

141-43-5, Monoethanolamine, uses

uses 9002-98-6 **9003-05-8**, 12125-02-9, Ammonium chloride, uses

Stearyldimethylamine 14
Ammonium sulfate, uses

Polyacrylamide

Page 10hardee793d

RL: MOA (Modifier or additive use); USES (Uses)

(color care agent; dryer-added fabric

softener compn. usage to provide color and other

fabric appearance benefits)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1998:512202 CAPLUS

DOCUMENT NUMBER: 129:217887

TITLE: Nonwoven fabrics of synthetic long fibers with

improved softness and good adhesion to materials and

absorbent products therefrom

INVENTOR(S): Fujiwara, Toshikatsu; Horiuchi, Shingo; Sugawara,

Shigeyuki

PATENT ASSIGNEE(S): Chisso Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 10212651 A2 19980811 JP 1997-9955 19970123
PRIORITY APPLN. INFO.: JP 1997-9955 19970123

OTHER SOURCE(S): MARPAT 129:217887

The nonwoven fabrics comprise fibers consisting of a (A) component comprising .gtoreq.20% ethylene-acrylic acid ester-maleic anhydride copolymers and linear higher fatty acids or metal salts thereof (Cn-1H2(n-m)-1COO-)aXa+ (I; n = 10-30; m = no. of unsatd. bonds in the aliph. chain; X = Li, K, Na, Ca, Mg, Zn, Pb, Al, Ba, Cd) and (B) a component comprising cryst. thermoplastic polymers and having the surface partially or wholly comprising A component and having I content 500-5000 ppm. The nonwoven fabrics are useful for sanitary napkins, disposable diapers, and medical-care products (no data). A compn. contg. 88:9.5:2.5 Et acrylate-ethylene-maleic anhydride copolymer (II) and 3000 ppm (on fiber) Mg stearate as the sheath and isotactic polypropylene as the core were together melt spun at 50:50 ratio, passed through an air sucker, treated with elec. corona, opened, piled on a conveyer, and embossed at m.p. or softening temp. of II component to give a nonwoven fabric exhibiting softness rating (10 monitors, 1 good handle per monitor) 9 and strength of adhesion to Al foil 2.4 kg/5 cm, strength of adhesion to kraft paper 7.5 kg/5 cm, and strength of adhesion to rayon fabric 6.4 kg/5 cm.

IT 41171-14-6, Ethyl acrylate-ethylene-maleic anhydride
 copolymer

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, bicomponent with polypropylene or poly(ethylene terephthalate) core; nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom)

RN 41171-14-6 CAPLUS

CN 2-Propenoic acid, ethyl ester, polymer with ethene and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5 CMF C5 H8 O2

CM 2

CRN 108-31-6 CMF C4 H2 O3

CM 3

CRN 74-85-1 CMF C2 H4

#### $H_2C = CH_2$

IC ICM D04H003-00 ICS A61F013-54; A61F013-15; D01F006-30; D01F006-46; D04H003-14; D04H003-16

CC 40-10 (Textiles and Fibers) Section cross-reference(s): 63

ST nonwoven synthetic absorbent material softness; polypropylene ethyl acrylate copolymer bicomponent fiber; fiber synthetic nonwoven absorbent material softness; PET ethyl acrylate copolymer bicomponent fiber; sanitary napkin synthetic nonwoven softness; disposable diaper synthetic nonwoven softness; medical good synthetic nonwoven softness; fatty acid synthetic nonwoven softness; magnesium stearate synthetic nonwoven softness

IT Synthetic polymeric fibers, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM
(Technical or engineered material use); PROC (Process); USES (Uses)
(Et acrylate-ethylene-maleic anhydride, bicomponent with
polypropylene or poly(ethylene terephthalate) fibers; nonwoven fabrics
of synthetic long fibers with improved softness and good adhesion to
materials and absorbent products therefrom)

Polyester fibers, uses
Polypropene fibers, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM
(Technical or engineered material use); PROC (Process); USES (Uses)
(bicomponent with fibers from Et acrylate copolymers or their
blends with polyethylene or LLDPE; nonwoven fabrics of synthetic long
fibers with improved softness and good adhesion to materials and
absorbent products therefrom)

ΙT Polymer blends RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (blends of Et acrylate copolymers and polyethylene or LLDPE, fiber, bicomponent with cryst. polymers; nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom) Linear low density polyethylenes ΙT RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (blends with Et acrylate copolymers, fiber, bicomponent with polypropylene or PET core; nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom) ΙT Polyesters, uses RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (fiber, bicomponent with sheath contg. Et acrylate -ethylene-maleic anhydride copolymers; nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom) Fatty acids, uses ΙT RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (long-chain; nonwoven fabrics of synthetic long fibers contg. higher fatty acid or salts with improved softness and good adhesion to materials and absorbent products therefrom) ΙT Disposable diapers Medical goods (medical-care products; nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom) ΙT Synthetic polymeric fibers, uses RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (nonwoven fabrics of long fibers from cryst. polymer core and Et acrylate-ethylene-maleic anhydride copolymer-contg. sheath with improved softness and good adhesion to materials and absorbent products therefrom) TT Nonwoven fabrics (nonwoven fabrics of synthetic long fibers contg. higher fatty acid or salts with improved softness and good adhesion to materials and absorbent products therefrom) ΙT Adhesion, physical (nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom) ΙT Medical goods (sanitary napkins; nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom) 9002-88-4, Polyethylene IT RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (blends with Et acrylate copolymers, fiber, bicomponent with polypropylene or PET core; nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom)

IT 41171-14-6, Ethyl acrylate-ethylene-maleic anhydride

copolymer

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, bicomponent with polypropylene or poly(ethylene terephthalate) core; nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom)

IT 25038-59-9, Poly(ethylene terephthalate), uses 25085-53-4, Isotactic polypropylene

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, bicomponent with sheath contg. Et acrylate

-ethylene-maleic anhydride copolymers; nonwoven fabrics of synthetic long fibers with improved softness and good adhesion to materials and absorbent products therefrom)

IT 544-63-8, Tetradecanoic acid, uses 557-04-0, Magnesium stearate 557-07-3, Zinc oleate 2624-31-9, Potassium hexadecanoate 19704-83-7, Calcium linoleate 20336-95-2, Lithium decanoate 75501-00-7, Sodium triacontanoate 98978-61-1 138172-77-7

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (nonwoven fabrics of synthetic long fibers contg. higher fatty acid or salts with improved softness and good adhesion to materials and absorbent products therefrom)

L10 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:

1998:512201 CAPLUS

DOCUMENT NUMBER:

129:204128

TITLE:

Nonwoven fabrics of melt-adherable long synthetic conjugate fibers with improved softness and good adhesion to materials and hygroscopic products

therefrom

INVENTOR(S):

Fujiwara, Toshikatsu; Horiuchi, Shingo; Sugawara,

Shigeyuki

PATENT ASSIGNEE(S):

Chisso Corp., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE JP 1997-9782 19970122 JP 1997-9782 19970122 \_\_\_\_ -----JP 10212650 A2 19980811 PRIORITY APPLN. INFO.: The nonwoven fabrics comprise melt-adherable fibers consisting of a component (A) contg. .gtoreq.20% ethylene-acrylic acid ester-maleic anhydride copolymers and a component comprising cryst. thermoplastic polymers having m.p. greater than the m.p. of A component and have the surface partially or wholly comprising A component and have A component essentially contg. hydrocarbon lubricants and optionally contg. inorg. powders and have total content of hydrocarbon lubricants 2-20%. The nonwoven fabrics are useful for health-care materials, disposable diapers, and sanitary napkins (no data). A compn. contg. 9.5:88:2.5 Et acrylate-ethylene-maleic anhydride copolymer (I; m.p. 102.degree.) and 10% (on fiber) microparaffin as the sheath and isotactic polypropylene as the core were together melt spun at 50:50 ratio, passed through an air sucker, exposed to elec. corona, opened, piled on an endless conveyer, and embossed at the m.p. or **softening** temp. of I to give a nonwoven fabric with softness rating (10 monitors) 8 and strength of adhesion to Al foil 2.9 kg/5 cm, strength of adhesion to kraft paper 8.0 kg/5 cm, and strength of adhesion to rayon fabric 6.9 kg/5 cm.

IT 41171-14-6, Ethyl acrylate-ethylene-maleic anhydride copolymer

RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); PROC

(Process); USES (Uses)
(fiber, bicomponent with cryst. thermoplastic polymers; nonwoven fabrics of melt-adherable long synthetic conjugate fibers with improved softness and good adhesion to materials)

RN 41171-14-6 CAPLUS

CN 2-Propenoic acid, ethyl ester, polymer with ethene and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{EtO-C-CH------} \text{CH}_2 \end{array}$$

CM 2

CRN 108-31-6 CMF C4 H2 O3

CM 3

CRN 74-85-1 CMF C2 H4

 $H_2C = CH_2$ 

IC ICM D04H003-00 ICS A61F013-54; A61F013-15; D01F006-30; D01F006-46; D04H003-14; D04H003-16

CC 40-10 (Textiles and Fibers) Section cross-reference(s): 63

ST nonwoven synthetic conjugate fiber softness; adhesion synthetic conjugate fiber nonwoven; ethylene copolymer polypropylene bicomponent fiber

TT

ΙT

IT

TΤ

ΙT

IT

ΙT

IT

TT

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nonwoven; PET ethylene polymer bicomponent fiber nonwoven; paraffin
synthetic fiber nonwoven softness; talc synthetic fiber nonwoven softness;
silica synthetic fiber nonwoven softness; titania synthetic fiber nonwoven
softness; medical good synthetic fiber nonwoven softness; disposable
diaper synthetic fiber nonwoven softness; sanitary napkin synthetic fiber
nonwoven softness
Synthetic polymeric fibers, uses
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
chemical process); PRP (Properties); TEM (Technical or engineered material
use); BIOL (Biological study); PROC (Process); USES (Uses)
   (Et acrylate-ethylene-maleic anhydride, bicomponent with
   polypropylene fibers; nonwoven fabrics of melt-adherable long synthetic
   conjugate fibers with improved softness and good adhesion to materials)
Paraffin waxes, uses
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
   (additives; nonwoven fabrics of melt-adherable long synthetic conjugate
   fibers with improved softness and good adhesion to materials)
Polvester fibers, uses
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
chemical process); PRP (Properties); TEM (Technical or engineered material
use); BIOL (Biological study); PROC (Process); USES (Uses)
   (bicomponent with Et acrylate-ethylene-maleic anhydride
   copolymer-polyethylene blend fibers; nonwoven fabrics of melt-adherable
   long synthetic conjugate fibers with improved softness and good
   adhesion to materials)
Polypropene fibers, uses
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
chemical process); PRP (Properties); TEM (Technical or engineered material
use); BIOL (Biological study); PROC (Process); USES (Uses)
   (bicomponent with ethylene polymer fibers; nonwoven fabrics of
   melt-adherable long synthetic conjugate fibers with improved softness
   and good adhesion to materials)
Polymer blends
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
chemical process); PRP (Properties); TEM (Technical or engineered material
use); BIOL (Biological study); PROC (Process); USES (Uses)
   (blends of Et acrylate-ethylene-maleic anhydride copolymers
   with polyethylene, fiber, bicomponent with cryst. polymers; nonwoven
   fabrics of melt-adherable long synthetic conjugate fibers with improved
   softness and good adhesion to materials)
Polyesters, uses
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
chemical process); PRP (Properties); TEM (Technical or engineered material
use); BIOL (Biological study); PROC (Process); USES (Uses)
   (fiber, bicomponent with Et acrylate-ethylene-maleic
   anhydride copolymer-polyethylene blends; nonwoven fabrics of
   melt-adherable long synthetic conjugate fibers with improved softness
   and good adhesion to materials)
Medical goods
   (health-care materials; nonwoven fabrics of
   melt-adherable long synthetic conjugate fibers with improved softness
   and good adhesion to materials for)
Lubricants
   (hydrocarbons, additives; nonwoven fabrics of melt-adherable long
   synthetic conjugate fibers with improved softness and good adhesion to
   materials)
Hydrocarbons, uses
```

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (lubricants, additives; nonwoven fabrics of melt-adherable long

```
synthetic conjugate fibers with improved softness and good adhesion to
        materials)
ΙT
     Adhesion, physical
     Nonwoven fabrics
        (nonwoven fabrics of melt-adherable long synthetic conjugate fibers
        with improved softness and good adhesion to materials)
ΙT
     Synthetic polymeric fibers, uses
     RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
     chemical process); PRP (Properties); TEM (Technical or engineered material
     use); BIOL (Biological study); PROC (Process); USES (Uses)
        (nonwoven fabrics of melt-adherable long synthetic conjugate fibers
        with improved softness and good adhesion to materials)
ΙT
     Disposable diapers
        (nonwoven fabrics of melt-adherable long synthetic conjugate fibers
        with improved softness and good adhesion to materials for)
IT
     Inorganic compounds
     RL: MOA (Modifier or additive use); USES (Uses)
        (powd., additives; nonwoven fabrics of melt-adherable long synthetic
        conjugate fibers with improved softness and good adhesion to materials)
ΙT
     Medical goods
        (sanitary napkins; nonwoven fabrics of melt-adherable long synthetic
        conjugate fibers with improved softness and good adhesion to materials
     471-34-1, Calcium carbonate, uses
                                        1305-78-8, Calcium oxide, uses
ΙT
     1309-48-4, Magnesium oxide, uses
                                       10043-67-1, Alum
     RL: MOA (Modifier or additive use); USES (Uses)
        (additive; nonwoven fabrics of melt-adherable long synthetic conjugate
        fibers with improved softness and good adhesion to materials)
                                                                    14807-96-6,
ΙT
     7631-86-9, Silica, uses
                               13463-67-7, Titanium dioxide, uses
     Talc, uses
     RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
        (additive; nonwoven fabrics of melt-adherable long synthetic conjugate
        fibers with improved softness and good adhesion to materials)
TT
     25038-59-9, Poly(ethylene terephthalate), uses
     RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
     chemical process); PRP (Properties); TEM (Technical or engineered material
     use); BIOL (Biological study); PROC (Process); USES (Uses)
        (fiber, bicomponent with Et acrylate-ethylene-maleic
        anhydride copolymer-polyethylene blends; nonwoven fabrics of
        melt-adherable long synthetic conjugate fibers with improved softness
        and good adhesion to materials)
     25085-53-4, Isotactic polypropylene
ΙT
     RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
     chemical process); PRP (Properties); TEM (Technical or engineered material
     use); BIOL (Biological study); PROC (Process); USES (Uses)
        (fiber, bicomponent with Et acrylate-ethylene-maleic
        anhydride copolymers or their blends with polyethylene; nonwoven
        fabrics of melt-adherable long synthetic conjugate fibers with improved
        softness and good adhesion to materials)
     41171-14-6, Ethyl acrylate-ethylene-maleic anhydride
TΤ
     copolymer
     RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
     chemical process); POF (Polymer in formulation); PRP (Properties); TEM
    (Technical or engineered material use); BIOL (Biological study); PROC
     (Process); USES (Uses)
        (fiber, bicomponent with cryst. thermoplastic polymers; nonwoven
        fabrics of melt-adherable long synthetic conjugate fibers with improved
        softness and good adhesion to materials)
IT
     9002-88-4, Polyethylene
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RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); PROC (Process); USES (Uses)

(fiber, blends with Et acrylate-ethylene-maleic anhydride copolymers, bicomponent with cryst. polymers; nonwoven fabrics of melt-adherable long synthetic conjugate fibers with improved softness and good adhesion to materials)

IT 9003-07-0, Polypropylene

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (waxes, additives; nonwoven fabrics of melt-adherable long synthetic conjugate fibers with improved softness and good adhesion to materials)

L10 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1998:485480 CAPLUS

DOCUMENT NUMBER: 129:190261

TITLE: Abrasion-resistant elastic sheets, expandable sheets,

elastic cellular moldings, and related products

therefrom

INVENTOR(S): Kuremoto, Isamu; Morikawa, Tomio; Goto, Akio

PATENT ASSIGNEE(S): Marushin Chemical Rubber K. K., Japan; Nippon Unicar

Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 10195256 A2 19980728 JP 1996-356679 19961227
PRIORITY APPLN. INFO.: JP 1996-356679 19961227

The elastic sheets comprise 70-90 parts ethylene-vinyl acetate copolymer (melt index 0.5-5 g/10 min, vinyl acetate content 17-26%) and 10-30 parts polyurethane elastomers (Vicat softening point 70-100.degree.). The blends are kneaded at 80-130.degree. for .gtoreq.7 min and then calendered using chilled rollers. The expandable sheets comprise the blends and further contain 0.1-25 parts chem. blowing agents, where the total compns. are kneaded and calendered as above. Elastic moldings, prepd. by heating the expandable sheets of proper size in molds at or above the decompn. point of the blowing agents, are also claimed. To prep. moldings with skin layers, laminates of the expandable sheets and the elastic sheets are heated as above. Also claimed are elastic moldings with skin layers, where the elastic layers are prepd. from 100 parts polyolefins, thermoplastic elastomers, natural rubber, and/or synthetic rubbers and 0.1-25 parts chem. blowing agents. Shoe soles, shoes and sandals with such soles, pool mats, and mats for domestic animals comprise the elastic moldings. Multilayer laminates of the elastic sheets and (non) woven fabrics, and flexible containers therefrom, are also claimed. Thus, a 20:80 blend of Resamine P 2045 and NUC 3195 was kneaded for 10 min and calender molded with a chill roll to give a 2-mm-thick sheet showing tensile strength 66 kg/cm2, elongation 620%, tear strength 21 kg/cm, abrasion resistance (ASTM D 1630) 231, resilience 48%, and hardness (JIS K 6301) 82.

9010-86-0, Ethylene-ethyl acrylate copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(cellular, DQDJ 6182; abrasion-resistant moldings from ethylene-vinyl

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acetate copolymer/urethane rubber blends with good cushioning property)
 RN
      9010-86-0 CAPLUS
      2-Propenoic acid, ethyl ester, polymer with ethene (9CI) (CA INDEX NAME)
 CN
     CM
     CRN
          140-88-5
     CMF C5 H8 O2
     0
 EtO-C-CH-CH2
      CM
           2
     CRN
          74-85-1
     CMF C2 H4
 H_2C = CH_2
 IC
      ICM C08L023-04
           B29C043-18; B29C043-24; B29C044-00; B29D007-00; C08J009-06;
           C08L075-04; B29K055-00; B29K105-04; B29L007-00
 CC
     38-3 (Plastics Fabrication and Uses)
     Section cross-reference(s): 39, 40
     EVA urethane rubber blend molding; ethylene vinyl acetate copolymer
 ST
     compn molding; abrasion resistant cellular molding EVA based; shoe
     sandal mat elastic molding
     Abrasion-resistant materials
 ΙT
     Shoes
         (abrasion-resistant moldings from ethylene-vinyl acetate
         copolymer/urethane rubber blends with good cushioning property)
. IT
     Urethane rubber, uses
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
      engineered material use); USES (Uses)
         (abrasion-resistant moldings from ethylene-vinyl acetate
         copolymer/urethane rubber blends with good cushioning property)
 TΤ
     Plastic foams
      Polymer blends
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
         (abrasion-resistant moldings from ethylene-vinyl acetate
         copolymer/urethane rubber blends with good cushioning property)
 ΙT
         (cellular, elastic; abrasion-resistant moldings from ethylene-vinyl
         acetate copolymer/urethane rubber blends with good cushioning property)
 TT
      Containers
         (flexible; abrasion-resistant moldings from ethylene-vinyl acetate
         copolymer/urethane rubber blends with good cushioning property)
      Isoprene rubber, uses
 TT
      RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
      engineered material use); USES (Uses)
         (of cis-1,4-configuration, JSR IR 2200, cellular; abrasion-resistant
         moldings from ethylene-vinyl acetate copolymer/urethane rubber blends
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with good cushioning property)
ΙT
     Urethane rubber, uses
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (polyether-, cellular, Resamine P 2045, Estane 58202;
        abrasion-resistant moldings from ethylene-vinyl acetate
        copolymer/urethane rubber blends with good cushioning property)
ΙT
     Shoes
        (soles; abrasion-resistant moldings from ethylene-vinyl acetate
        copolymer/urethane rubber blends with good cushioning property)
     Polypropene fibers, uses
IΤ
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
        (woven fabrics; abrasion-resistant moldings from
        ethylene-vinyl acetate copolymer/urethane rubber blends with good
        cushioning property)
     123-77-3, Azodicarbonamide
     RL: NUU (Other use, unclassified); USES (Uses)
        (blowing agents, AZ 605; abrasion-resistant moldings from
        ethylene-vinyl acetate copolymer/urethane rubber blends with good
        cushioning property)
     9010-86-0, Ethylene-ethyl acrylate copolymer
IT
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (cellular, DQDJ 6182; abrasion-resistant moldings from ethylene-vinyl
        acetate copolymer/urethane rubber blends with good cushioning property)
     24937-78-8, NUC 3195
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (cellular, NUC 3770; abrasion-resistant moldings from ethylene-vinyl
        acetate copolymer/urethane rubber blends with good cushioning property)
     9003-07-0, Y 201
IT
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (fiber, woven fabrics; abrasion-resistant moldings
        from ethylene-vinyl acetate copolymer/urethane rubber blends with good
        cushioning property)
     9003-31-0
IΤ
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (cis-1,4-Isoprene rubber, JSR IR 2200, cellular; abrasion-resistant
        moldings from ethylene-vinyl acetate copolymer/urethane rubber blends
        with good cushioning property)
L10 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2003 ACS
                         1997:101051 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         126:105434
                         Waterproofing synthetic fiber products with lasting
TITLE:
                         fastness to washings and friction and water-repellent
                         products therefrom
                         Karasawa, Rumi; Okamoto, Takaharu; Hiraiwa, Shogo;
INVENTOR(S):
                         Sakai, Terue
                         Toray Industries, Japan; Kyoken Kasei Kk
PATENT ASSIGNEE(S):
                         Jpn. Kokai Tokkyo Koho, 6 pp.
SOURCE:
                         CODEN: JKXXAF
DOCUMENT TYPE:
                         Patent
                         Japanese
LANGUAGE:
FAMILY ACC. NUM. COUNT:
                         1
PATENT INFORMATION:
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PATENT NO.
                     KIND DATE
                                         APPLICATION NO. DATE
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                                                           _____
                     A2
                           19961112
     JP 08296175
                                          JP 1995-103611 19950427
PRIORITY APPLN. INFO.:
                                       JP 1995-103611
                                                           19950427
    In the title process, products (A) contg. synthetic fibers are treated
    with solns. contg. perfluoroalkyl group-contg. acrylic copolymers 0.01-10,
    aminoplasts 0.01-2, polyfunctional blocked isocyanate group-contg.
    urethane polymers 0.01-4, and ethylene carbonate (I) 0.1-30 parts per 100
    parts A and heat-treated to give products suitable for sports wear (no
    data). A dyed polyamide oxford was padded with an aq.
    compn. contg. waterproofing agent (prepd. by polymn. of a
    mixt. of C4-12F9-25CH2CH2OCOCH: CH2 88,
    MeEtCNOCONHC6H4CH2C6H4NHCO2CH2CH2CH:CH2 1, stearyl acrylate 9,
    and vinyl chloride 4 g) 60, urethane polymer (prepd. from
    trimethylolpropane 120, mixt. of 2,4-TDI and 2,6-TDI 423, and Me
    Et ketoxime 86 g) 5, Catalyst WL-2 1, Sumitex Resin M 6 3, Sumitex
    Accelerator ACX 1, I 20, and H2O 910 g to pickup 60%, dried at 120.degree.
    for 3 min, and heat-treated 45 s to give a fabric exhibiting water
    resistance (JIS L-1092; shower method) 100 initially, 100 after 10
    washings, and 90-100 on abrading the fabric for 50
    cycles in an appearance retention tester for 50 cycles in the wet state.
IC
    ICM D06M015-256
    ICS D06M015-423
CC
    40-9 (Textiles and Fibers)
    fabric synthetic waterproofing washfastness; polyamide fabric
    waterproofing washfastness; fluoropolymer waterproofing agent synthetic
    fabric; polyurethane finish synthetic fabric waterproofing fastness;
    aminoplast finish synthetic fabric waterproofing fastness; ethylene
    carbonate synthetic fabric waterproofing fastness; abrasion
    fastness synthetic fabric waterproofing; sports wear water
    repellent synthetic fabric
ΙT
    Aminoplasts
    RL: MOA (Modifier or additive use); POF (Polymer in formulation); PRP
     (Properties); USES (Uses)
        (additive; for waterproofing synthetic fiber products with lasting
       fastness to washings and friction for water-repellent products)
TT
    Polyurethanes, uses
    RL: IMF (Industrial manufacture); MOA (Modifier or additive use); POF
     (Polymer in formulation); PRP (Properties); PREP (Preparation); USES
        (additives; for waterproofing synthetic fiber products with lasting
        fastness to washings and friction for water-repellent products)
IT
    Aminoplasts
    RL: MOA (Modifier or additive use); POF (Polymer in formulation); PRP
     (Properties); USES (Uses)
        (additives; for waterproofing synthetic fiber products with lasting
        fastness to washings and friction for water-repellent products)
ΙT
    Synthetic polymeric fibers, uses
    RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM
     (Technical or engineered material use); PROC (Process); USES (Uses)
        (fabrics; waterproofing synthetic fiber products with lasting fastness
       to washings and friction for water-repellent products)
IT
    Waterproofing agents
        (fluoropolymers; for waterproofing synthetic fiber products with
       lasting fastness to washings and friction for water-repellent products)
IT
    Textiles
    RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM
     (Technical or engineered material use); PROC (Process); USES (Uses)
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(from synthetic fibers; waterproofing with lasting fastness to washings
        and friction for water-repellent products)
TΨ
     Waterproofing
        (of synthetic fiber products with lasting fastness to washings and
        friction for water-repellent products)
IT
     Clothing
        (sportswear; waterproofing synthetic fiber products with lasting
        fastness to washings and friction for)
     Fluoropolymers, uses
TT
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (waterproofing agents; for waterproofing synthetic fiber products with
        lasting fastness to washings and friction for water-repellent products)
     Polyamide fibers, uses
     RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM
     (Technical or engineered material use); PROC (Process); USES (Uses)
        (waterproofing synthetic fiber products with lasting fastness to
        washings and friction and water-repellent products therefrom)
ΙT
     96-29-7DP, Methyl ethyl ketoxime, reaction products with
     TDI-trimethylolpropane copolymers
                                         9017-09-8DP, TDI-trimethylolpropane
     copolymer, Me Et ketimine-terminated
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); POF
     (Polymer in formulation); PRP (Properties); PREP (Preparation); USES
        (additive; for waterproofing synthetic fiber products with lasting
        fastness to washings and friction for water-repellent products)
TΤ
     9003-08-1
     RL: MOA (Modifier or additive use); POF (Polymer in formulation); PRP
     (Properties); USES (Uses)
        (additive; for waterproofing synthetic fiber products with lasting
        fastness to washings and friction for water-repellent products)
ΙT
     96-49-1, Ethylene carbonate
     RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
        (synthetic fiber products treated with acrylic fluoropolymers,
        urethanes, aminoplasts, and ethylene carbonate)
     75-01-4DP, polymers with perfluoralkyl group-contg. vinyl compd., stearyl
TΤ
     acrylate and N-contg. vinyl compd.
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (waterproofing agent; for waterproofing synthetic fiber products with
        lasting fastness to washings and friction for water-repellent products)
     79-10-7DP, 2-Propenoic acid, perfluoroalkyl ethers, polymers with vinyl
IT
                                          4813-57-4DP, Stearyl
     compds. and stearyl acrylate, uses
     acrylate, polymers with perfluoralkyl group-contg. vinyl compd.,
                                                185972-01-4DP, polymers with
     vinyl chloride and N-contg. vinyl compd.
     perfluoralkyl group-contg. vinyl compd., stearyl acrylate and
     vinyl chloride
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (waterproofing agents; for waterproofing synthetic fiber products with
        lasting fastness to washings and friction for water-repellent products)
L10 ANSWER 10 OF 32 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER:
                         1996:537266 CAPLUS
DOCUMENT NUMBER:
                         125:171549
                         Softening-through-the-wash laundry detergent
TITLE:
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compositions
INVENTOR(S):
                        Van Leeuwen, Petrus Johannes; Convents, Andre
                        Christian; Busch, Alfred
PATENT ASSIGNEE(S):
                        Procter and Gamble Company, USA
SOURCE:
                        Eur. Pat. Appl., 21 pp.
                        CODEN: EPXXDW
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                  KIND DATE
    PATENT NO.
                                        APPLICATION NO. DATE
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     _____
                                         _____
    EP 719856
                     A1
                           19960703
                                        EP 1994-870213 19941229
    EP 719856
                     B1 20021016
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
PRIORITY APPLN. INFO.:
                                       EP 1994-870213
                                                          19941229
    The present invention relates to softness through-the-wash laundry
    detergent compns. capable of providing excellent color
    care and fabric softness benefits comprising a polymeric
    dye transfer inhibiting agent, and a clay softening
    system characterized in that the polymeric dye-transfer
    inhibiting agent is substantially water-insol.; preferably said agent is a
    crosslinked polymer. Optionally, the water-insol. polymeric dye
    -transfer inhibitor is used with a water-sol. polymeric dye
    -transfer inhibitor. Crosslinked poly(vinylpyrrolidone) is a typical
    water-insol. dye-transfer inhibitor.
TC
    ICM C11D003-00
    ICS C11D003-37; C11D003-12
CC
     46-5 (Surface Active Agents and Detergents)
    clay softener laundry detergent; dye transfer
ST
    inhibitor crosslinked polymer detergent; polyvinylpyrrolidone crosslinked
    dye transfer inhibitor detergent
ΙT
    Polyamines
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
        (N-oxides; softening-through-the-wash
       laundry detergent compns. contg. clay softeners and
       polymeric dye-transfer inhibitors)
IΤ
    Softening agents
        (softening-through-the-wash laundry detergent compns
        . contg. clay softeners and polymeric dye-transfer
       inhibitors)
IΤ
    Polymers, uses
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
        (softening-through-the-wash laundry detergent compns
        . contg. clay softeners and polymeric dye-transfer
       inhibitors)
    Detergents
IT
        (laundry, softening-through-the-wash laundry detergent
       compns. contg. clay softeners and polymeric
       dye-transfer inhibitors)
IT
    Clays, uses
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
        (smectitic, softening-through-the-wash laundry detergent
       compns. contg. clay softeners and polymeric
       dye-transfer inhibitors)
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9003-39-8D, Polyvinylpyrrolidone, crosslinked ΙT RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (dye-transfer inhibitor; softening-through-the-wash laundry detergent compns. contq. clay softeners and polymeric **dye-**transfer inhibitors) 180627-84-3D, Vinylimidazole-4-vinylpyridine N-ΙT oxide-vinylpyrrolidone copolymer, crosslinked RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (softening-through-the-wash laundry detergent compns . contq. clay softeners and polymeric dye-transfer inhibitors) L10 ANSWER 11 OF 32 CAPLUS COPYRIGHT 2003 ACS 1996:462487 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 125:117333 Wrinkle reducing composition for fabric and TITLE: spray dispenser INVENTOR(S): Vogel, Alice Marie; Wahl, Errol Hoffman; Cappel, Jerome Paul; Ward, Thomas Carl PATENT ASSIGNEE(S): Procter and Gamble Company, USA SOURCE: PCT Int. Appl., 28 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ \_\_\_\_ \_\_\_\_\_ WO 9615310 A2 19960523 WO 1995-US14033 19951031 WO 9615310 A3 19960808 W: BR, CA, CZ, FI, HU, JP, MX, NO RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE EP 1995-938981 19951031 19970827 EP 791096 A1 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE A 19971021 BR 1995-9716 19951031 BR 9509716 19951031 19980902 JP 1995-516104 JP 10508912 T2 ZA 1995-9558 19951110 ZA 9509558 Α 19960605 19960624 US 1996-668978 19980825 US 5798107 Α 19941110 US 1994-338314 PRIORITY APPLN. INFO.: WO 1995-US14033 19951031 The sprayable compn. comprises a wrinkle reducing active, which AΒ is made up of an effective amt. of silicone and an effective amt. of film-forming polymer, and a liq. carrier, such as water or a mixt . of water and solvent, and is applied with any spray dispenser. compn. is substantially free of starch, modified starch, and mixts., and results a loss modulus difference .gtorsim.3.3 .times. 107 Pascal on fabric. The wrinkle reducing actives in the compn . can be detd. through dynamic mech. anal. using a 100% cotton broadcloth swatch and a fixed vol. of a sample of wrinkle reducing active. A typical compn. (durable press grade 4.2) comprised polydimethylsiloxane (GE SM 2140) 1.00, acrylic acid-Et acrylate-methacrylic acid-Me methacrylate copolymer (Amerhold DR 25) 0.50, Sandopan DTC surfactant 0.10, perfume 0.01, preservative 0.0003%, and water the ΙΤ 25053-63-8, Acrylic acid-ethyl acrylate-methacrylic

acid-methyl methacrylate copolymer

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Page 25hardee793d
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RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(Amerhold DR 25; wrinkle reducing compn. for fabric)

RN 25053-63-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5 CMF C5 H8 O2

CM 2

CRN 80-62-6 CMF C5 H8 O2

CM' 3

CRN 79-41-4 CMF C4 H6 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

### IT 30581-59-0

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(wrinkle reducing compn. for fabric)

RN 30581-59-0 CAPLUS

2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with CN 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME) CM1 CRN 2867-47-2 CMF C8 H15 N O2 O CH2 Me2N-CH2-CH2-O-C-C-Me CM2 88-12-0 CRN CMF C6 H9 N O  $CH = CH_2$ IC ICM D06M015-643 ICS D06M023-06; G01N033-36; G01N003-00 CC 40-9 (Textiles and Fibers) sprayable wrinkle reducing agent; textile easy care STfinishing agent; silicone contg wrinkle reducing agent; acrylic polymer impart shape retention fabric ΙT Betaines RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (wrinkle reducing compn. for fabric) TΤ Polysiloxanes RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) ([(aminoethyl)amino]propyl, di-Me, wrinkle reducing compn. for fabric) ΙT Fabric finishing (agents, silicone and film forming polymer; wrinkle reducing compn. for fabric) ΙT Polysiloxanes RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (di-Me, epoxy-contg., Softener DSW 17; wrinkle reducing compn. for fabric) IΤ Epoxy resins RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (epoxy-contg. di-Me polysiloxane-, Softener DSW 17; wrinkle reducing compn. for fabric) ΙT Coating apparatus (spray, for applying wrinkle reducing compn. on fabric) IT 25053-63-8, Acrylic acid-ethyl acrylate-methacrylic

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acid-methyl methacrylate copolymer
     RL: DEV (Device component use); TEM (Technical or engineered material
     use); USES (Uses)
        (Amerhold DR 25; wrinkle reducing compn. for fabric)
     31692-79-2
IT
     RL: DEV (Device component use); TEM (Technical or engineered material
     use); USES (Uses)
        (DC 1669; wrinkle reducing compn. for fabric)
     79-41-4D, esters, polymer with Et betaine 9002-89-5
                                                             9016-00-6,
IΤ
     Poly[oxy(dimethylsilylene)] 9045-81-2
                                               25212-19-5
                                                            29499-22-7
     29792-49-2 30581-59-0 31900-57-9 59680-46-5, Kymene 557H
                133184-01-7
                              156623-21-1D, hydroxy-terminated
     72018-12-3
                                                                   168678-85-1,
                179077-76-0
                               179241-45-3, Diaformer Z-SM
     Cypro 515
     RL: DEV (Device component use); TEM (Technical or engineered material
     use); USES (Uses)
        (wrinkle reducing compn. for fabric)
L10 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2003 ACS
                         1996:462486 CAPLUS
ACCESSION NUMBER:
                         125:117332
DOCUMENT NUMBER:
                         Wrinkle reducing composition for fabric
TITLE:
INVENTOR(S):
                         Vogel, Alice Marie; Wahl, Errol Hoffman; Cappel,
                         Jerome Paul; Ward, Thomas Carl
                         Procter and Gamble Company, USA
PATENT ASSIGNEE(S):
                         PCT Int. Appl., 28 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                  KIND DATE
                                         APPLICATION NO. DATE
                                           _____
     ______
                      ____
                           _____
                                           WO 1995-US14030 19951031
                       A2
                            19960523
     WO 9615309
     WO 9615309
                      A3 19960718
         W: BR, CA, CZ, FI, HU, JP, MX, NO
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                         EP 1995-939646 19951031
     EP 791097
                      A2
                          19970827
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
                                        BR 1995-9712
                                                         19951031
                            19980616
     BR 9509712
                     Α
                                           JP 1995-516102
                                                            19951031
     JP 10508911
                       T2
                            19980902
                                                            19951110
     ZA 9509557
                       Α
                            19960528
                                           ZA 1995-9557
                                                        A 19941110
                                        US 1994-338313
PRIORITY APPLN. INFO.:
                                        WO 1995-US14030 W 19951031
     The sprayable compn. comprises a wrinkle reducing active, which
AΒ
     is made up of an effective amt. of silicone and an effective amt. of
     film-forming polymer, and a liq. carrier, such as water or a mixt
     . of water and solvent. The compn. is substantially free of
    starch, modified starch, and mixts., and results a loss modulus difference .gtorsim.3.3 .times. 107 Pascal on fabric. The wrinkle
     reducing actives in the compn. can be detd. through dynamic
     mech. anal. using a 100% cotton broadcloth swatch and a fixed vol. of a
     sample of wrinkle reducing active. A typical compn. (durable
     press grade 4.2) comprised polydimethylsiloxane (GE SM 2140) 1.00, acrylic
     acid-Et acrylate-methacrylic acid-Me methacrylate
     copolymer (Amerhold DR 25) 0.50, Sandopan DTC surfactant 0.10, perfume
     0.01, preservative 0.0003%, and water the balance.
TΤ
     25053-63-8, Acrylic acid-ethyl acrylate-methacrylic
     acid-methyl methacrylate copolymer
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Page 28hardee793d
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RL: TEM (Technical or engineered material use); USES (Uses) (Amerhold DR 25; wrinkle reducing compn. for fabric) RN 25053-63-8 CAPLUS CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME) CM140-88-5 CRN CMF C5 H8 O2 0 EtO-C-CH-CH2 CM 2 CRN 80-62-6 CMF C5 H8 O2 H<sub>2</sub>C O Me-C-C-OMeCM CRN 79-41-4 CMF C4 H6 O2 CH<sub>2</sub> Me-C-CO2H CM CRN . 79-10-7 CMF C3 H4 O2 0  $HO-C-CH=CH_2$ ΙT 30581-59-0 RL: TEM (Technical or engineered material use); USES (Uses) (wrinkle reducing compn. for fabric) 30581-59-0 CAPLUS RN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with CN

1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me}_2\text{N--CH}_2\text{--CH}_2\text{--O-C-C-Me} \end{array}$$

CM 2

CRN 88-12-0 CMF C6 H9 N O

IC ICM D06M015-643

ICS D06M013-144; D06M013-463; D06M015-263; D06M023-04

CC 40-9 (Textiles and Fibers)

ST sprayable wrinkle reducing agent; textile easy care finishing agent; silicone contg wrinkle reducing agent; acrylic polymer impart shape retention fabric

IT Betaines

RL: TEM (Technical or engineered material use); USES (Uses) (wrinkle reducing compn. for fabric)

IT Polysiloxanes, uses

RL: TEM (Technical or engineered material use); USES (Uses) ([(aminoethyl)amino]propyl, di-Me, wrinkle reducing compn. for fabric)

IT Fabric finishing

(agents, silicone and film forming polymer; wrinkle reducing compn. for fabric)

IT Polysiloxanes, uses

RL: TEM (Technical or engineered material use); USES (Uses) (di-Me, epoxy-contg., **Softener** DSW 17; wrinkle reducing **compn.** for fabric)

IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses) (epoxy-contg. di-Me polysiloxane-, Softener DSW 17; wrinkle reducing compn. for fabric)

IT 25053-63-8, Acrylic acid-ethyl acrylate-methacrylic acid-methyl methacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses) (Amerhold DR 25; wrinkle reducing compn. for fabric)

IT 31692-79-2

RL: TEM (Technical or engineered material use); USES (Uses) (DC 1669 and Dimethiconol; wrinkle reducing compn. for fabric)

IT 79-41-4D, esters, polymer with Et betaine 9002-89-5 9016-00-6,

```
Poly[oxy(dimethylsilylene)] 9045-81-2 25212-19-5 29499-22-7
    29792-49-2 30581-59-0 31900-57-9 59680-46-5, Kymene 557H
                133184-01-7 156623-21-1D, hydroxy-terminated
    72018-12-3
                                                                 168678-85-1,
                179077-76-0 179241-45-3, Diaformer Z-SM
    Cypro 515
    RL: TEM (Technical or engineered material use); USES (Uses)
        (wrinkle reducing compn. for fabric)
L10 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2003 ACS
                        1996:452711 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        125:170814
TITLE:
                        Wrinkle reducing composition for clothing
                        Vogel, Alice M.; Wahl, Errol H.; Cappel, Jerome P.;
INVENTOR(S):
                        Ward, Thomas C.
PATENT ASSIGNEE(S):
                        Procter and Gamble Co., USA
SOURCE:
                        U.S., 11 pp.
                        CODEN: USXXAM
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
    PATENT NO.
                   KIND DATE
                                  APPLICATION NO. DATE
                    ----
     ______
                          ------
                                         ______
                     Α
                                         US 1994-337921
    US 5532023
                           19960702
                                                          19941110
PRIORITY APPLN. INFO.:
                                      US 1994-337921
                                                          19941110
    A sprayable compn. which produces a laundry-resistant
    wrinkle-preventing finish on clothing comprises a wrinkle reducing active,
    which is made up of an effective amt. of silicone and an effective amt. of
    film-forming polymer, and a liq. carrier. The compn. is
    substantially free of starch, modified starch, and mixts.
    thereof, and results in a Loss Modulus Difference of >3.3 .times. 107 Pa
    on fabric.
    25053-63-8, Amerhold DR 25 30581-59-0,
    Dimethylaminoethyl methacrylate-vinylpyrrolidone copolymer
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
       (film-forming agent; silicone-contg. sprayable compns. for
       producing laundry-resistant wrinkle-preventing finishes on clothing)
    25053-63-8 CAPLUS
RN
    2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate, methyl
CN
    2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)
    CM
         1
        140-88-5
    CRN
    CMF C5 H8 O2
    0
EtO-C-CH-CH2
    CM
         2
    CRN 80-62-6
    CMF C5 H8 O2
```

CM 3

CRN 79-41-4 CMF C4 H6 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

RN 30581-59-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2 CMF C8 H15 N O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{--} \text{CH}_2 \text{--} \text{O-C-C-Me} \end{array}$$

CM 2

CRN 88-12-0 CMF C6 H9 N O

```
ICM B05D003-02
NCL
    427008000
CC
     40-9 (Textiles and Fibers)
ST
     starch free wrinkle reducing finish clothing; laundry resistant wrinkling
     reducing finish clothing; silicone sprayable wrinkle reducing finish
     clothing
IT
     Polvamines
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
        (film-forming agent; silicone-contg. sprayable compns. for
        producing laundry-resistant wrinkle-preventing finishes on clothing)
ΙΤ
    Betaines
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
        (methacryloylethyl, polymers with methacrylates, film-forming
        agent; silicone-contg. sprayable compns. for producing
        laundry-resistant wrinkle-preventing finishes on clothing)
IT
    Wearing apparel
        (silicone-contg. sprayable compns. for producing
        laundry-resistant wrinkle-preventing finishes on clothing)
ΙT
    Alcohols, uses
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
        (C12-13, ethoxylated, Neodol 23-6.5, film-forming agent;
        silicone-contg. sprayable compns. for producing
        laundry-resistant wrinkle-preventing finishes on clothing)
    Siloxanes and Silicones, uses
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        ([(aminoethyl)amino]propyl Me, di-Me, Dow Corning 108; silicone-contg.
        sprayable compns. for producing laundry-resistant
        wrinkle-preventing finishes on clothing)
ΙT
    Siloxanes and Silicones, uses
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        ([(aminoethyl)amino]propyl Me, di-Me, trimethylsilyl-terminated,
        Sandoperm ME; silicone-contg. sprayable compns. for producing
        laundry-resistant wrinkle-preventing finishes on clothing)
TT
     Textile easy-care finishing
        (creaseproofing, agents, silicone-contg. sprayable compns.
        for producing laundry-resistant wrinkle-preventing finishes on
        clothing)
ΙT
    Siloxanes and Silicones, uses
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        (di-Me, silicone-contg. sprayable compns. for producing
        laundry-resistant wrinkle-preventing finishes on clothing)
IΤ
    Epoxy resins, uses
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        (di-Me siloxane-, Softener DSW; silicone-contg. sprayable
        compns. for producing laundry-resistant wrinkle-preventing
        finishes on clothing)
ΙT
    Siloxanes and Silicones, uses
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
    use); USES (Uses)
        (di-Me, 3-hydroxypropyl Me, ethoxylated propoxylated, silicone-contg.
        sprayable compns. for producing laundry-resistant
        wrinkle-preventing finishes on clothing)
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ΙT
     Siloxanes and Silicones, uses
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (di-Me, epoxy, Softener DSW; silicone-contq. sprayable
        compns. for producing laundry-resistant wrinkle-preventing
        finishes on clothing)
ΙT
     Quaternary ammonium compounds, uses
     RL: MOA (Modifier or additive use); TEM (Technical or engineered material
     use); USES (Uses)
        (polymers, film-forming agent; silicone-contg. sprayable compns
        . for producing laundry-resistant wrinkle-preventing finishes on
        clothing)
     31692-79-2, DC 1669
IT
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (DC 1784; silicone-contg. sprayable compns. for producing
        laundry-resistant wrinkle-preventing finishes on clothing)
ΙT
     25212-19-5
     RL: MOA (Modifier or additive use); TEM (Technical or engineered material
     use); USES (Uses)
        (Delsette 101, film-forming agent; silicone-contg. sprayable
        compns. for producing laundry-resistant wrinkle-preventing
        finishes on clothing)
     9016-00-6, Poly[oxy(dimethylsilylene)]
IΤ
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (SM 2140 and SM 2068A; silicone-contg. sprayable compns. for
       producing laundry-resistant wrinkle-preventing finishes on clothing)
     79-41-4D, esters, polymers with methacryloylethyl betaine
                                                                 106-89-8D,
     reaction products with adipic acid-diethylenetriamine copolymer
     25053-63-8, Amerhold DR 25
                                  25085-20-5D, Adipic
     acid-diethylenetriamine copolymer, reaction products with epichlorohydrin
     30581-59-0, Dimethylaminoethyl methacrylate
     -vinylpyrrolidone copolymer 59680-46-5, Kymene 557H
                                                             133184-01-7,
                                                168678-85-1, Cypro 515
                       151065-65-5, Vinex 2019
     Cartaretin F 23
     179241-45-3, Diaformer Z-SM
     RL: MOA (Modifier or additive use); TEM (Technical or engineered material
     use); USES (Uses)
        (film-forming agent; silicone-contg. sprayable compns. for
        producing laundry-resistant wrinkle-preventing finishes on clothing)
     31900-57-9D, Dimethylsilanediol homopolymer, hydroxy-terminated
TΨ
     156623-21-1D, trimethylsilyl-terminated
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (silicone-contg. sprayable compns. for producing
        laundry-resistant wrinkle-preventing finishes on clothing)
L10 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2003 ACS
                         1996:332943 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         125:89085
TITLE:
                         Manufacture of indigo-dyed fabrics with
                         washed and worn appearance and soft handle by
                         simplified process
                         Mcfarland, James E.; Davis, Ellis, Jr.; Teague, Edward
INVENTOR(S):
                         W.
                         Burlington Industries, Inc., USA
PATENT ASSIGNEE(S):
SOURCE:
                         U.S., 5 pp.
                         CODEN: USXXAM
DOCUMENT TYPE:
                         Patent
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LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
    PATENT NO.
                    KIND DATE
                                        APPLICATION NO. DATE
                                      US 1994-309158 19940920
    -----
    US 5514187 A
                         19960507
PRIORITY APPLN. INFO.:
                                       US 1994-309158 19940920
    The title fabrics are prepd. by dyeing mech. spun cellulosic
    yarns with solns. contg. indigo dyes and polymeric thickening
    agents to cause area of dye penetration to the fibers <20% (on
    fiber cross section) to form yarns with a dyed surface and an
    undyed core, forming fabrics using the yarns as the warp and undyed yarns
    as the filling, and abrading the surface of the fabrics
    to cause partial or complete removal of the dyed yarn surface.
    Mech. spun cotton yarns were dipped in a bath contg. an indigo dye
    paste and 0.1% (as solids) Pomosist 117 (I; polyacrylamide) for
    5 dips, washed, and sized with a compn. contg. corn starch. A
    woven fabric was prepd. using this yarn as the warp and undyed cotton yarn
    as the filling, made into jeans, treated with a desizing agent, abraded
    with a compn. contq. cellulose enzyme and pumice stones for 40
    min at 140.degree.F, bleached, and treated with a soln. contg. Vircosoft
    SLP3 (softening agent) to give jeans with washed and worn
    appearance and shade strength 61.84% of shade strength obtained using no
ΙT
    9003-05-8, Polyacrylamide
    RL: MOA (Modifier or additive use); USES (Uses)
        (Pomosist 117, thickener; for manuf. of indigo-dyed fabrics
       with washed and worn appearance and soft handle by simplified process)
    9003-05-8 CAPLUS
RN
    2-Propenamide, homopolymer (9CI) (CA INDEX NAME)
CN
    CM
    CRN 79-06-1
    CMF C3 H5 N O
    0
H2N-C-CH=CH2
    ICM D06P007-00
IC
    ICS D06P005-02; C09B067-00
NCL
    008401000
CC
    40-6 (Textiles and Fibers)
    cotton jean indigo dyed worn appearance; softness stonewashed
ST
    indigo dyed cotton jean; denim cotton indigo dyed worn
    appearance
ΙT
    Dyeing
        (indigo; for manuf. of fabrics with washed and worn appearance)
ΙT
    Wearing apparel
        (manuf. of indigo-dyed jeans with washed and worn appearance
       and soft handle by simplified process)
```

(cellulosic, manuf. of indigo-dyed fabrics with washed and worn appearance and soft handle by simplified process)

Textiles

Textiles

ΤT

IT

(cotton, denims; manuf. of indigo-dyed fabrics with washed and worn appearance and soft handle by simplified process)

IT 9003-05-8, Polyacrylamide

RL: MOA (Modifier or additive use); USES (Uses)
(Pomosist 117, thickener; for manuf. of indigo-dyed fabrics
with washed and worn appearance and soft handle by simplified process)

L10 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1991:610178 CAPLUS

ACCESSION NUMBER: 1991:610178
DOCUMENT NUMBER: 115:210178

DOCOMENT NOMBER.

TITLE: A method and compositions for textile

finishing

INVENTOR(S): Isharani, Jayanti V.; Raper, James Kenneth; Allen,

Donald A., Jr.; Middleton, John W.

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz. SOURCE: Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 445077	A2	19910904	EP 1991-810117	19910221
EP 445077	A3	19920708		
EP 445077	B1	19940518		
R: BE, CH,	DE, ES	, FR, GB,	IT, LI, NL	
ES 2054471	Т3	19940801	ES 1991-810117	19910221
CA 2037327	AA	19910903	CA 1991-2037327	19910228
JP 04214469	A2	19920805	JP 1991-34882	19910301
US 5464545	A	19951107	US 1994-232308	19940425
PRIORITY APPLN. INFO	. :		US 1990-487560	19900302
			US 1991-804628	19911209
			US 1993-71213	19930602

AB A method for imparting durability to a textile finish comprises applying a compn. contg. a nonformaldehyde-releasing, reverse water-sol. polymer as binder resin. This finish can also contain softener, water repellents, oil repellents, flame retardants, soil release agent, etc. A 50/50 polyester-cotton textile was padded with a compn. contg. a reverse water-sol. polymer of poly(oxyethylene) and polymethylenepolyphenylene polyisocyanate, a polyethylene softener, and a perfluoroalkyl acrylate-polyethylene oxide block copolymer to 73% pickup, dried at 300.degree.F for 1 min, washed 5 times, and thumble-dried to give a fabric with Stark release rating 6 and wrinkle recovery 3.

IC ICM D06M015-53

ICS D06M015-09; D06M015-568; D06M015-277

CC 40-9 (Textiles and Fibers)

ST finishing textile formaldehyde free; urethane polyoxyalkylene finish textile

IT Polyester fibers, uses and miscellaneous

RL: USES (Uses)

(cotton blends, formaldehyde-free finishing of, urethanepolyoxyalkylenes or agents for)

IT **Textile** easy-care finishing

(durable-press, formaldehyde-free, urethane-polyoxyalkylenes for)
IT 9016-87-9D, reaction products with polyethylene glycol 25322-68-3D,
Polyethylene glycol, reaction products with polymethylenepolyphenylene

## Page 36hardee793d

polyisocyanate RL: USES (Uses) (finishing agents, for textiles, formaldehyde-free) ΙT 79-10-7D, Acrylic acid, perfluoroalkyl esters, polymers polyethylene glycol, block RL: USES (Uses) (stainproofing agents, for formaldehyde-free finishing agents) L10 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1991:431058 CAPLUS DOCUMENT NUMBER: 115:31058 TITLE: Foamable composition for printing on cellulose-containing textile materials INVENTOR(S): Mazurina, N. A.; Efremova, G. V.; Dryagina, T. I.; Sokolova, T. N.; Glinkin, P. M. PATENT ASSIGNEE(S): Ivanovo Scientific-Research Institute of the Cotton-Paper Industry, USSR SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1991, (2), 69. CODEN: URXXAF DOCUMENT TYPE: Patent Russian LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE ----\_\_\_\_\_ -----\_\_\_\_\_\_ SU 1620515 A1 19910115 SU 1988-4412383 19880418 PRIORITY APPLN. INFO.: SU 1988-4412383 19880418 The foamable (compn. for printing on cellulose-contg. textile materials) contq. reactive dye, urea, foaming agent, thickener, synthetic fatty acid monoethanolamide (10-16 C atoms) (I), NaHCO3, and H2O has increased intensity of color and abrasion resistance. By using TMS prepn. (II) based on Na salt of a sulfonated mixt. of higher fatty alcs. as the foaming agent; hydroxyethyl cellulose (degree of hydroxyethylation 1.52-2.17) (III) thickener; and by also adding GPA-u prepn. (IV) based on modified polyacrylamide with the degree of hydrolysis 15-20% and GkZh-94M prepn. (V) based on poly(methylhydroxysiloxane) to the foam compn. Thus, the compn. contains reactive dye 10-50, urea (melt) 195-205, II 10-15, III 6.5-7.1, I 17-18, GPA-u prepn. IV (6% aq. soln.) 175-180, V 2-5, NaHCO3 25-35 g/kg, are H2O up to 1000 g/kg. IT 9003-05-8D, Polyacrylamide, hydrolyzed RL: USES (Uses) (foamable compns. contq., for printing on cellulosic textiles) RN 9003-05-8 CAPLUS 2-Propenamide, homopolymer (9CI) (CA INDEX NAME) CN CM1 CRN 79-06-1 CMF C3 H5 N O

 $H_2N-C-CH$   $CH_2$ 

0

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IC
     ICM D06P001-38
     40-6 (Textiles and Fibers)
CC
ST
     printing cellulosic textile foam compn; abrasion
     resistance printing textile
ΙT
     Foaming agents
        (sulfonated fatty alc. sodium salts, for printing on textiles)
IT
     Textile printing
        (reactive, foam compns. for, dye-urea-foaming agent
        mixts. as)
     9003-05-8D, Polyacrylamide, hydrolyzed
                                              9004-62-0,
IT
     Hydroxyethyl cellulose
     RL: USES (Uses)
        (foamable compns. contg., for printing on cellulosic
        textiles)
L10 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2003 ACS
                        1989:615882 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         111:215882
TITLE:
                         Concurrent dyeing and finishing. Part XI.
                         A new approach for basic dyeing and resin
                        finishing of PET/cotton blend fabric
                        Ibrahim, N. A.
AUTHOR(S):
CORPORATE SOURCE:
                        Text. Res. Div., Natl. Res. Cent., Dokki, Egypt
                        American Dyestuff Reporter (1989), 78(6), 35-8, 42
SOURCE:
                         CODEN: ADREAI; ISSN: 0002-8266
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
     A single-stage process for basic dyeing and resin finishing of
     50/50 polyester/cotton fabric for combinations of 5 finishing agents, 3
     basic dyes, and 5 catalysts, showed that the extent of
     dyeing as well as crosslinking reactions and/or interactions were
     governed by the natures and concns. of catalyst finishing agent, and basic
     dye as well as by curing conditions. Incorporation of Na
     acrylate in the formulation was accompanied by a significant
     decrement in the extent of dyeing and crosslinking. Prolonging
     the curing time up to 3 min. at 160.degree. enhanced the color strength,
     bound N and dry crease recovery of the treated fabrics, but the magnitude
     of color strength and the fastness properties of the dyeings
     were detd. by the nature of the dye.
CC
     40-6 (Textiles and Fibers)
     dyeing finishing concurrent polyester cotton
ST
     Textile easy-care finishing
ΙT
        (concurrent basic dyeing and, of cotton-polyester fabric)
ΙT
     Dyeing
        (basic, concurrent finishing and, of cotton-polyester fabrics)
     7722-76-1, Monoammonium phosphate 7727-54-0, Ammonium persulfate
ΙT
     7783-20-2, Ammonium sulfate, uses and miscellaneous
                                                           7786-30-3, Magnesium
     chloride, uses and miscellaneous 12125-02-9, Ammonium chloride, uses and
     miscellaneous
     RL: CAT (Catalyst use); USES (Uses)
        (catalysts, for concurrent dyeing and finishing of
        cotton-polyester fabrics)
ΙT
     9003-08-1
     RL: USES (Uses)
        (concurrent dyeing-finishing compns. contg.
        Cassurit, for polyester-cotton fabrics)
                           12221-76-0, C.I. Basic Violet 33 28965-54-0,
     1854-26-8, Arkofix NG
ΙT
     Knittex GR 74899-31-3, C.I. Basic Blue 120 109489-54-5, Finish DMA
     123759-40-0, Maxilon Brilliant Orange 2R
```

RL: USES (Uses) (concurrent dyeing-finishing compns. contg., for polyester-cotton fabrics) L10 ANSWER 18 OF 32 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1989:615881 CAPLUS DOCUMENT NUMBER: 111:215881 One-stage technology for dyeing and TITLE: finishing of cotton-Lavsan fabrics Shcheglova, T. L.; Kirillova, M. N.; Kozlyuk, A. L. AUTHOR(S): CORPORATE SOURCE: Ivanov. Khim.-Tekhnol. Inst., Ivanovo, USSR Izvestiya Vysshikh Uchebnykh Zavedenii, Tekhnologiya SOURCE: Tekstil'noi Promyshlennosti (1989), (2), 67-70 CODEN: IVTTAF; ISSN: 0021-3497 DOCUMENT TYPE: Journal LANGUAGE: Russian A 1-stage process for simultaneous reactive dyeing and finishing of cotton-polyester fabrics was developed. The effects of the type of precondensate of thermosetting resins, catalysts, and thickeners on color properties of fabrics were detd. The most favorable ratio of the dye content on cotton and Lavsan was attained in the presence of Metazin 6U (melamine-HCHO copolymer) at concn. 80-100 g/L in the The creaseproofing effect of Metazin 6U was increased by addn. of Carbamol TsEM at 1:1 ratio. The best results in combining the dyeing and finishing processes was attained in the presence of NH4Cl as a catalyst, which ensured a higher color intensity than Mg salts at similar strength properties, and a better finishing effect. A high color intensity, resistance to dry and wet rubbing, and high creaseproofing effect at a permissible decrease in tensile strength of the fabrics were attained by introducing Na alginate (I)-Metasol or Ipolyacrylamide compns., at 1:1 component ratio, in the dyebath. ΙT 9003-05-8, Polyacrylamide 29755-80-4, Metasol RL: USES (Uses) (thickening agents contg. sodium alginate and, for dyeing -creaseproofing of cotton-polyester blends) 9003-05-8 CAPLUS RN 2-Propenamide, homopolymer (9CI) (CA INDEX NAME) CN CM 1 CRN 79-06-1 CMF · C3 H5 N O 0  $H_2N-C-CH=CH_2$ RN 29755-80-4 CAPLUS 2-Propenoic acid, 2-methyl-, sodium salt, polymer with CN 2-methyl-2-propenamide (9CI) (CA INDEX NAME) ĆM CRN 5536-61-8 CMF C4 H6 O2 . Na

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CH<sub>2</sub>
Me-C-CO2H
   ● Na
     CM
     CRN
         79-39-0
         C4 H7 N O
     CMF
 H<sub>2</sub>C O
Me-C-C-NH2
CC
     40-6 (Textiles and Fibers)
     cotton polyester dyeing creaseproofing
ST
IT
     Catalysts and Catalysis
        (ammonium chloride, for dyeing-creaseproofing of
        cotton-polyester blends)
IT
     Thickening agents
        (sodium alginate compns. contg. Metasol or
        polyacrylamide, for dyeing-creaseproofing of
        cotton-polyester blends)
     Textile easy-care finishing
ΙT
        (creaseproofing, reactive dyeing and, of cotton-polyester
        fabrics, by one-stage process)
ΙT
     Dyeing
        (reactive, creaseproofing and, of cotton-polyester fabrics, by
        one-stage process)
ΙT
     9003-08-1, Metazin 6U
     RL: USES (Uses)
        (additives, for improved coloration and creaseproofing of
        cotton-polyester fabrics)
ΙT
     136-84-5
     RL: USES (Uses)
        (creaseproofing agents, in dyeing cotton-polyester fabrics,
        for improved color intensity)
                                           12226-45-8, Reactive Golden Yellow
     11111-81-2, Reactive Red Brown 2KT
ΙT
                                          17804-49-8, Reactive Brilliant Red
           13324-20-4, Ostazin Blue SR
            37311-13-0, Reactive Red Violet 2KT
                                                    37328-84-0, Reactive Yellow
     5SKh
                    53923-06-1, Reactive Brilliant Red 6S
                                                               56646-12-9,
     Lightfast 2KT
                          70616-89-6, Ostazin Brilliant Orange H2R
     Reactive Violet 4K
     RL: USES (Uses)
        (dyeing with, of cotton-polyester fabrics)
     9003-05-8, Polyacrylamide 29755-80-4, Metasol
TT
     RL: USES (Uses)
        (thickening agents contg. sodium alginate and, for dyeing,
        -creaseproofing of cotton-polyester blends)
IT
     9005-38-3, Sodium alginate
     RL: USES (Uses)
        (thickening agents, Metasol- or polyacrylamide-contg., for
```

## dyeing-creaseproofing of cotton-polyester blends)

L10 ANSWER 19 OF 32 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1989:596706 CAPLUS

DOCUMENT NUMBER: 111:196706

TITLE: Binders for one-bath dyeing and finishing of

textiles

Penzel, Erich Dr; Schoepke, Holger; Bassing, Dieter INVENTOR(S):

PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.

KIND DATE

SOURCE: Ger. Offen., 5 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent German LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

DE 1000 \_\_\_\_\_\_ Al 19890601 DE 1988-3838463 19881112 DE 3838463 PRIORITY APPLN. INFO.: DE 1987-3739541 19871121 The title binders, having good sedimentation resistance in aq. baths, comprise copolymers (min. film-forming temp. <0.degree.; glass temp. -5.degree. to -30.degree.) of H2C:CCl2 5-30, C2-10 alkyl acrylates 60-90, .alpha.,.beta.-unsatd. C3-5 mono- or dicarboxylic acids and/or amides 0.3-5, N-methylol(meth)acrylamide and/or ethers with C1-4 alcs. 2-5, and H2C:CHSO3Na 0-2%, the copolymers being prepd. by emulsion polymn. with a disulfonate emulsifier. A copolymer (I; glass temp. -28.degree.) was prepd. from Bu acrylate 33.6, H2C:CC12 3.91, acrylic acid 0.78, 50% aq. acrylamide soln. 0.78, 15% aq. Nmethylolmethacrylamide soln. 5.22, and 25% aq. H2C:CHSO3Na soln. 1.13 kg with 1.3 kg 45% ag. di-Na C12 alkyldiphenyl ether disulfonate

APPLICATION NO. DATE

soln. as the emulsifier. I was used in a textile dyeing bath contq. an easy-care finishing compn. based on dimethylolurea, exhibiting better sedimentation resistance than a similar

copolymer prepd. with Na lauryl sulfate as the emulsifier.

ΙT 123502-45-4 123502-46-5 123502-47-6 123502-48-7 123502-49-8 123502-50-1

RL: USES (Uses)

(binders, dispersible, in aq. dyeing-finishing baths for textiles)

123502-45-4 CAPLUS RN

2-Propenoic acid, polymer with butyl 2-propenoate, 1,1-dichloroethene, CN N-(hydroxymethyl)-2-methyl-2-propenamide, 2-propenamide and sodium ethenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 3039-83-6

CMF C2 H4 O3 S . Na

H2C==CH-SO3H

Na

CM 2

CRN 923-02-4 CMF C5 H9 N O2

CM 3

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array} \text{CH}_2$$

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 79-06-1 CMF C3 H5 N O

CM 6

CRN 75-35-4 CMF C2 H2 C12

## Page 42hardee793d

RN 123502-46-5 CAPLUS

CN 2-Propenoic acid, polymer with butyl 2-propenoate, 1,1-dichloroethene, ethenyl propanoate, N-(ethoxymethyl)-2-methyl-2-propenamide and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 3644-09-5 CMF C7 H13 N O2

CM 2

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array} \hspace{-0.5cm} = \hspace{-0.5cm} \text{CH}_2$$

CM 3

CRN 105-38-4 CMF C5 H8 O2

$$\begin{array}{c} {\rm O} \\ || \\ {\rm H_2C} = {\rm CH-O-C-Et} \end{array}$$

.CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 79-06-1 CMF C3 H5 N O Page 43hardee793d

CM 6

CRN 75-35-4 CMF C2 H2 C12

RN 123502-47-6 CAPLUS

CN 2-Propenoic acid, polymer with 1,1-dichloroethene, 2-ethylhexyl 2-propenoate, N-(hydroxymethyl)-2-methyl-2-propenamide and 2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 923-02-4 CMF C5 H9 N O2

$$^{\rm H_2C}_{||}$$
  $^{\rm O}_{||}$   $^{\rm H_2C}_{||}$   $^{\rm O}_{\rm Me}$   $^{\rm C}_{\rm C}$   $^{\rm C}_{\rm NH}$   $^{\rm C}_{\rm H_2}$   $^{\rm O}_{\rm OH}$ 

CM 2

CRN 103-11-7 CMF C11 H20 O2

CM 3

CRN 79-39-0 CMF C4 H7 N O

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 75-35-4 CMF C2 H2 C12

RN 123502-48-7 CAPLUS

CN 2-Propenoic acid, polymer with butyl 2-propenoate, 1,1-dichloroethene, 1,1-dimethylethyl 2-propenoate, N-(hydroxymethyl)-2-methyl-2-propenamide, 2-propenamide and sodium ethenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 3039-83-6 CMF C2 H4 O3 S . Na

 $_{\mathrm{H2C}}$  CH- SO<sub>3</sub>H

Na

CM 2

CRN 1663-39-4 CMF C7 H12 O2

CM 3

CRN 923-02-4 CMF C5 H9 N O2

KOROMA EIC1700

Page 45hardee793d

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 79-10-7 CMF C3 H4 O2

CM 6

CRN 79-06-1 CMF C3 H5 N O

CM 7

CRN 75-35-4 CMF C2 H2 C12

RN 123502-49-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 1,1-dichloroethene, ethyl 2-propenoate, N-(hydroxymethyl)-2-methyl-2-propenamide and 2-propenamide (9CI) (CA INDEX NAME)

CM :

CRN 923-02-4 CMF C5 H9 N O2

$$\begin{array}{c|c} ^{\rm H_2C} & {\rm O} \\ || & || \\ ^{\rm Me-} & {\rm C-C-NH-CH_2-OH} \end{array}$$

CM 2

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 140-88-5 CMF C5 H8 O2

CM 4

CRN 79-41-4 CMF C4 H6 O2

CM 5

CRN 79-06-1 CMF C3 H5 N O

KOROMA EIC1700

CM 6

CRN 75-35-4 CMF C2 H2 C12

RN 123502-50-1 CAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 1,1-dichloroethene, N-(ethoxymethyl)-2-methyl-2-propenamide, 2-methylpropyl 2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 3644-09-5 CMF C7 H13 N O2

$$\begin{array}{ccc} ^{\text{H2C}} & \text{O} \\ & \parallel & \parallel \\ ^{\text{Me}-C-C-NH-CH_2-OEt} \end{array}$$

CM 2

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c}
0 \\ \parallel \\
n-BuO-C-CH \longrightarrow CH_2
\end{array}$$

CM 3

CRN 106-63-8 CMF C7 H12 O2

CM 4

CRN 79-06-1 CMF C3 H5 N O

```
0
H2N-C-CH=CH2
     CM
          5
     CRN
          75-35-4
     CMF
          C2 H2 C12
   CH<sub>2</sub>
C1-C-C1
         C08F220-18
IC
     ICM
          D06P001-52; D06M015-263; D06M015-248; D06M015-29; D06M015-423
ICA
    C08F002-26
     C08F220-18, C08F214-08, C08F220-04, C08F222-02, C08F220-54, C08F220-58,
ICI
     C08F228-02, C08F218-08, C08F218-10
CC
     40-9 (Textiles and Fibers)
     binder textile dyeing finishing; dyeing finishing
ST
     binder acrylic; creaseproofing finish binder acrylic; emulsifier binder
     dyeing finishing; sulfonate emulsifier dyeing finishing;
     vinylidene chloride copolymer binder; hydroxymethylacrylamide
     copolymer binder; vinylsulfonate copolymer binder; butyl acrylate
     copolymer binder
ΙT
     Binding materials
        (acrylic polymers, in aq. dyeing-finishing baths for
        textiles)
ΙT
     Dyeing
        (baths for finishing and, of textiles, acrylic binders for)
ΙT
     Emulsifying agents
        (disulfonates, for acrylic binders, in dyeing-finishing bath
        for textiles)
TT
     Textile easy-care finishing
        (creaseproofing, baths for dyeing and, aq., acrylic binders
        for)
     123502-45-4 123502-46-5 123502-47-6
TΤ
     123502-48-7 123502-49-8 123502-50-1
     RL: USES (Uses)
        (binders, dispersible, in aq. dyeing-finishing baths for
        textiles)
                                             27154-83-2D, alkyl derivs.
     101-84-8D, alkyl derivs., sulfonated
     99825-29-3
                  102385-87-5
     RL: USES (Uses)
        (emulsifiers, for acrylic binders, in textile dyeing
        -finishing baths)
                      CAPLUS COPYRIGHT 2003 ACS
    ANSWER 20 OF 32
                         1988:424217 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         109:24217
                         Modification of silk and wool fibers for improved
TITLE:
                         crease resistance and lightfastness
                         Tanaka, Yoshio; Ban, Minoru
INVENTOR(S):
                         Agency of Industrial Sciences and Technology, Japan;
PATENT ASSIGNEE(S):
```

Ban Senko K. K.

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.		DATE	APPLICATION NO.	DATE			
		A2		JP 1986-95394	19860423			
PRIC	RITY APPLN. INFO.	:	JI	2 1986-95394	<del>-</del>			
AB				, and abrasion res				
	are prepd. by fi	rst tr	eating wool or	silk fibers with	epoxy compds. and			
	then grafting them with vinyl compds. A bleached silk fabric was immersed							
	in 1N KSCN, treated with a compn. contq. 15% ethylene glycol							
	diglycidyl ether and 5% Ph glycidyl ether, washed, and dried to give a							
	fabric with wt. increase 15%. The fabric was then grafted with an							
	emulsion contg. 30% styrene and 10% 2-hydroxyethyl acrylate for							
	30 min at 85.degree., and washed to give a fabric with graft-wt. increase							
	38% and good <b>dyeability</b> . The fabric showed friction-induced							
	elec. charge 600 V, wrinkle recovery angle (Monsanto method) 142.degree.							
	(dry) and 150.degree. (wet), yellowing index 16 after exposure to UV rays							
	in a weatherometer for 300 h, vs 800, 117, 115, and 45, resp., for the							
	untreated fabric		300 II, VS 600,	117, 113, and 43	, resp., rot the			
τ.α		•						
IC	ICM D06M013-18							

ICS D06M014-06

CC 40-9 (Textiles and Fibers)

crease resistance grafted silk; lightfastness vinyl compd grafted silk; ST antistatic vinyl compd grafted silk; dyeability vinyl compd grafted silk; styrene grafted silk crease resistance; epoxy grafted silk lightfastness; wool grafted crease resistance; acrylate grafted crease resistance; abrasion resistance grafted silk

ΙT Electric charge

(prevention of, in silk and wool fibers, by grafting with epoxy compds. and vinyl compds.)

TT Abrasion-resistant materials

Acid-resistant materials

Alkali-resistant materials

Light-resistant materials

(silk or wool grafted with epoxy compds. and vinyl compds. as)

ΙT Textile easy-care finishing

> (creaseproofing, of silk and wool fabrics, by grafting with epoxy compds. and vinyl compds.)

ΙT Polymerization

(graft, of epoxy compds. and vinyl compds., on silk or wool fibers, for improved crease resistance and lightfastness)

TΤ Textiles

(silk, grafted with epoxy compds. and vinyl compds., with improved crease resistance and lightfastness and abrasion resistance)

TT Textiles

> (wool, grafted with epoxy compds. and vinyl compds., with improved crease resistance and lightfastness and abrasion resistance)

79-39-0DP, Methacrylamide, graft copolymers with silk or wool, ΙT epoxy compds. and vinyl compds. 80-62-6DP, Methyl methacrylate , graft copolymers with silk or wool, epoxy compds. and vinyl compds. 96-09-3DP, Styrene oxide, graft copolymers with silk or wool, epoxy compds. and (meth)acrylate compds. 100-42-5DP, Styrene, graft

copolymers with silk or wool, epoxy compds. and (meth)acrylate compds. 101-90-6DP, Resorcinol diglycidyl ether, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 106-87-6DP, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 106-89-8DP, Epichlorohydrin, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 122-60-1DP, Phenyl glycidyl ether, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 141-32-2DP, Butyl acrylate, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 622-97-9DP, p-Methylstyrene, graft copolymers with silk or wool, epoxy compds. and (meth)acrylate 868-77-9DP, Hydroxyethyl methacrylate, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 1985-84-8DP, graft copolymers with silk or wool, epoxy compds. and vinyl 2039-82-9DP, p-Bromostyrene, graft copolymers with silk or wool, epoxy compds. and (meth)acrylate compds. 2095-06-9DP, N, N-Diglycidylaniline, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 2157-01-9DP, Octyl methacrylate, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 2224-15-9DP, Ethylene glycol diglycidyl ether, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 2274-13-7DP, N,N-Dibutylacrylamide, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 2370-63-0DP, Ethoxyethyl methacrylate , graft copolymers with silk or wool, epoxy compds. and vinyl compds. 2386-87-0DP, 3,4-Epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 2495-37-6DP, Benzyl methacrylate, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 7251-90-3DP, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 10595-06-9DP, Phenoxyethyl methacrylate, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 13236-02-7DP, Glycerol triglycidyl ether, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 13410-58-7DP, Hydrogenated bisphenol A diglycidyl ether, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 13532-94-0DP, Butoxyethyl methacrylate, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 16096-30-3DP, Propylene glycol diglycidyl ether, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 25736-86-1DP, Polyethylene glycol monomethacrylate, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 26403-72-5DP, Polyethylene glycol diglycidyl ether, graft copolymers with silk or wool, epoxy compds. and vinyl compds. 42612-27-1DP, graft copolymers with silk or wool, epoxy compds. and vinyl compds. RL: PREP (Preparation) (manuf. of, with improved crease resistance, lightfastness and abrasion resistance)

L10 ANSWER 21 OF 32 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1982:511265 CAPLUS

DOCUMENT NUMBER:

97:111265

TITLE: PATENT ASSIGNEE(S):

Resin finishing of textiles Toray Industries, Inc., Japan Jpn. Kokai Tokkyo Koho, 6 pp.

SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO.

```
JP 57066184
                       Α2
                            19820422
                                           JP 1980-139788
                                                             19801008
     JP 60007069
                       В4
                            19850222
                                        JP 1980-139788
PRIORITY APPLN. INFO.:
                                                             19801008
    Fabrics finished with compns. contg. a polymer or monomer with
     the refractive index (n) <1.5 and inorg. particles with n <1.8 have
     improved dyeing yield and abrasion resistance. Thus, a
    polyester georgette was prepd., sapond. with aq. 50 g/L NaOH at
     98.degree., and dyed with a liquor contg. 10% (on fiber wt.)
     Dianix Black RN-SE for 60 min at 130.degree.. The dyed fabric
    was finished with a compn. contq. aq. 1% poly(vinyl acetate)
     [9003-20-7] and 1.5% SiO2 with n 1.47 and particle size 0.15 .mu.,
     squeezed to 90% pickup, dried, and heat-treated 30 s at 160.degree. to
    give an abrasion-resistant fabric with high color
    yield, whereas color yield was low for a fabric finished with a similar
    compn. contg. Ti oxide with n 2.5 instead of
    Si02.
IC
    D06M015-00; D06M011-00
CC
     40-9 (Textiles)
ST
    polyester fabric abrasion resistance; abrasion
    resistance textile finishing; polyvinyl acetate finish
    polyester; silica finish polyester dyeability;
    dyeability textile inorg finish
IT
    Fluoropolymers
    Siloxanes and Silicones, uses and miscellaneous
    RL: USES (Uses)
        (finishes contg., for polyester fabrics, for improved
        abrasion resistance)
ΙT
    Polyester fibers, uses and miscellaneous
    RL: USES (Uses)
        (finishes for, polymers or silane derivs. contq. inorg. particles as,
        for improved dyeability and abrasion resistance)
ΙT
    Dyeing
        (of polyester fibers, with improved color yield, resin finishes contg.
        inorg. particles in)
                           9003-08-1
                                       9003-20-7 82905-46-2
                                                                 82905-67-7
ΙT
    7803-62-5D, derivs.
    RL: USES (Uses)
        (finishes contg., for polyester fabrics, for improved
        abrasion resistance)
    1344-28-1, uses and miscellaneous
ΙT
                                         7631-86-9, uses and miscellaneous
    RL: USES (Uses)
        (poly(vinyl acetate) finishes contg., for polyester fabrics, for
        improved dyeing yield)
ΙT
    11126-22-0
    RL: USES (Uses)
        (resin finishes contg., for polyester fabrics, for improved
        dyeing yield)
L10 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2003 ACS
                         1980:569359 CAPLUS
ACCESSION NUMBER:
                         93:169359
DOCUMENT NUMBER:
                         Nonwoven fabrics from bicomponent synthetic fibers for
TITLE:
                         manufacture of leather substitutes
PATENT ASSIGNEE(S):
                         Toray Industries, Inc., Japan
                         Jpn. Tokkyo Koho, 5 pp.
SOURCE:
                         CODEN: JAXXAD
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
```

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ \_\_\_\_ ----------\_\_\_\_\_ JP 55020011 19800530 B4 JP 1976-97768 19760818 PRIORITY APPLN. INFO.: JP 1976-97768 19760818 Island-in-the-sea bicomponent fibers spun from a styrene polymer (sea) and a polyester were useful for the manuf. of dense nonwoven fabrics suitable for the prodn. of abrasion-resistant suedelike leather substitutes. The difference in the softening temp. of the two polymers used was .gtoreq.40.degree.. Thus, octyl acrylate -styrene copolymer (I) [27812-50-6] (sea) and poly(ethylene terephthalate) (island) were melt spun at a 50:50 ratio. The spun fibers were drawn 130% at 88.degree., subsequently drawn 50% at 75.degree., crimped, cut, and needle punched to give a web with apparent d. 0.23. above web was shrunk, impregnated with aq. 15% poly(vinyl alc.), treated with trichloroethylene to dissolve the I component, coated with a mixt. contq. 13% polyurethane, treated with a coagulating liquor, and napped to give a suedelike leather substitute with high resistance to abrasion. ΙT 27812-50-6 RL: TEM (Technical or engineered material use); USES (Uses) (fiber, bicomponent island-in-sea cospun with polyesters, nonwoven fabrics from, for manuf. of abrasion-resistant suedelike leather substitutes) RN 27812-50-6 CAPLUS 2-Propenoic acid, octyl ester, polymer with ethenylbenzene (9CI) (CA CN INDEX NAME) CM 1 CRN 2499-59-4 CMF C11 H20 O2 0  $Me-(CH_2)_7-O-C-CH=CH_2$ CM 2 CRN 100-42-5 CMF C8 H8  $H_2C = CH - Ph$ D01F008-04; D01F008-10; D04H001-42 TC 37-3 (Plastics Fabrication and Uses) CC polyester leather substitute suedelike; polyurethane leather substitute STsuedelike; abrasion resistant leather substitute; styrene copolymer bicomponent fiber; urethane polymer leather substitute Polyester fibers, uses and miscellaneous IΤ RL: TEM (Technical or engineered material use); USES (Uses)

(bicomponent island-in-sea cospun with octyl acrylate-styrene

polymer sea, nonwoven **fabrics** from, for manuf. of **abrasion**-resistant suedelike leather substitutes)

Page 53hardee793d Urethane polymers, uses and miscellaneous TT RL: TEM (Technical or engineered material use); USES (Uses) (leather substitutes from nonwoven fabrics coated by, suedelike) ΙT Leather substitutes (suedelike abrasion-resistant, polyurethane-coated nonwoven fabrics) ΙT Synthetic fibers RL: TEM (Technical or engineered material use); USES (Uses) (octyl acrylate-styrene polymers, bicomponent island-in-sea cospun with polyesters, nonwoven fabrics from, for manuf. of abrasion-resistant suedelike leather substitutes) ΙT 27812-50-6 RL: TEM (Technical or engineered material use); USES (Uses) (fiber, bicomponent island-in-sea cospun with polyesters, nonwoven fabrics from, for manuf. of abrasion-resistant suedelike leather substitutes) L10 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1980:448159 CAPLUS DOCUMENT NUMBER: 93:48159 TITLE: Suedelike leather substitutes INVENTOR(S): Umezawa, Masao; Okamoto, Kazuyoshi PATENT ASSIGNEE(S): Toray Industries, Inc., Japan Jpn. Kokai Tokkyo Koho, 5 pp.

SOURCE:

CODEN: JKXXAF

KIND DATE

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

	JP 55040851			JP	1978-113662	19780918	
	JP 57027230	B4	19820609			•	
	US 4390566	A	19830628	US	1981-241634	19810309	
PRIO	RITY APPLN. INFO.:			JP 19	78-113662	19780918	
AB	Abrasion-resistan	t sue	delike lea	ther sub	stitutes were	prepd. by	first
	impregnating a sy						
*	rubber, then trea						
	and finishing the	shee	t. Thus,	poly(eth)	ylene terephth	nalate) and	
	2-ethylhexyl acry	late-	styrene co	polymer	(I) [25153-46	5-2	
	] were melt spun	at 50	:50 wt. ra	atio and a	a web was prep	od., needle	punched,
	shrunk at 80.degr						
	contg. 5% poly(vi	nyl a	lc.) (II)	and 5% po	olyurethane (J	III) emulsi	on. The
•	impregnated fabri	c was	immersed	in C2HCl	3 to dissolve	I, heated	10 min at
	150.degree., impr						
	coagulating liquo						
	and <b>dyed</b> to give	an ab	rasion-res	sistant c	olored suedeli	ike leather	
	substitute, where	as a	leather su	ubstitute	was not abras	sion resista	ant on
	first fibrillatin	g the	fibers ar	nd then co	oating the fak	oric with I	II.
ΙT	25153-46-2						
	RL: USES (Uses)		•				
	(in spinning c	f fin	e polyeste	er fibers	for manuf. of	f suedelike	leather

2-Propenoic acid, 2-ethylhexyl ester, polymer with ethenylbenzene (9CI)

APPLICATION NO.

DATE

CM 1

RN

CN

substitutes)

25153-46-2 CAPLUS

(CA INDEX NAME)

CRN 103-11-7 CMF C11 H20 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_2-\text{O-C-CH} \Longrightarrow \text{CH}_2 \\ \parallel \\ \text{Et-CH-Bu-n} \end{array}$$

CM 2

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

IC D06N007-00; B32B005-16; D06M015-70

CC 37-3 (Plastics Fabrication and Uses)

ST polyurethane leather substitute suedelike; polyester leather substitute suedelike; abrasion resistance leather substitute; urethane rubber leather substitute

IT Polyester fibers, uses and miscellaneous

RL: USES (Uses)

(coated with urethane rubber, for abrasion-resistant suedelike leather substitutes, fiber fibrillation in relation to)

IT Rubber, urethane, uses and miscellaneous

RL: USES (Uses) .

(suedelike leather substitutes from synthetic fabrics coated by, abrasion-resistant, fibrillation of fibers in relation to)

IT Leather substitutes

(suede, urethane rubber-coated synthetic fabrics, abrasion-resistant)

25153-46-2

RL: USES (Uses)

(in spinning of fine polyester fibers for manuf. of suedelike leather substitutes)

L10 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:

1973:148929 CAPLUS

DOCUMENT NUMBER:

78:148929

TITLE:

ΙT

Aqueous dispersion compositions for water-

and oilproofing of fabrics

INVENTOR(S):

Iwatani, Akitoshi

PATENT ASSIGNEE(S):

Daikin Kogyo Co., Ltd.

SOURCE:

Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO. DATE

KOROMA EIC1700

JP 47042276 B4 19721215 JP 1971-29012 19710501

AΒ Guanidine-malonic acid adduct (I) was added to a dispersion of a F-contg. polymer having C3-21 perfluoro alkyl pendant groups, and a polyester fabric was treated with the mixt. to give the fabric water and oil repellency without sacrificing the abrasion fastness of the dyed fabric. A guanidine soln. was treated with a soln. contg. 10 equiv. % (based on guanidine) malonic acid at room temp. to give a 10% solids soln. A compn. of the above soln. 2, 50% solids 3-(7-perfluoro methylperfluorooctyl)-2-acetoxypropyl acrylate -2-ethylhexyl methacrylate copolymer [36462-80-3] 0.5, Takenone AS 100 (polyalkylene glycol-type antistatic agent) 0.2, and water 20 parts was dild. to 100 parts with water. A polyester fabric (1 part) was immersed 3 min in the mixt., squeezed to 70% pickup, dried, and heated 3 min at 150.deg.. The fabric had water repellency (JIS L 1004-55) 100, oil repellency (AATCC 118-66T) 7, static electricity at 20.deg. and 65% relative humidity 5 V, compared with 80, 7, and 350 V, resp., for a similarly treated fabric without I.

IT 36462-80-3

RL: USES (Uses)

(oilproofing and waterproofing agents, contg. guanidine-malonic acid reaction products, for polyester fabrics)

RN 36462-80-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with 2-(acetyloxy)-4,4,5,5,6,6,7,7,8,8,9,9,10,11,11,11-hexadecafluoro-10-(trifluoromethyl)undecyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 45315-52-4 CMF C17 H11 F19 O4

CM 2

CRN 688-84-6 CMF C12 H22 O2

NCL 13(9)E11; 13(9)E2; 13(9)B31

C 39-10 (Textiles)

ST water permeability resistance polyester; guanidine malonic acid adduct

RL: USES (Uses)

KOROMA EIC1700

(-proofing, of polyester fabrics, by guanidine-malonic acid reaction products and perfluoroalkyl group-contg. polymers)

IT Waterproofing

(of polyester fabrics, with guanidine-malonic acid reaction products and perfluoroalkyl group-contg. polymers)

IT Polyester fibers

RL: USES (Uses)

(oilproofing and waterproofing of, with guanidine-malonic acid reaction products and perfluoroalkyl group-contg. polymers)

IT Guanidine, reaction products with malonic acid

Propanedioic acid, reaction products with guanidine

RL: USES (Uses)

(oilproofing and waterproofing agents, contg. perfluoroalkyl

group-contg. polymers, for polyester fabrics)

IT 36462-80-3

RL: USES (Uses)

(oilproofing and waterproofing agents, contg. guanidine-malonic acid reaction products, for polyester fabrics)

L10 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1972:476628 CAPLUS

DOCUMENT NUMBER: 77:76628

TITLE: Treating textile material with a soil-release

composition

PATENT ASSIGNEE(S): Deering Milliken Research Corp.

SOURCE:

Brit., 7 pp.

CODEN: BRXXAA

DOCUMENT TYPE: LANGUAGE: Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
GB 1277801 19720614

PRIORITY APPLN. INFO.:

US 1968-756072 19680828

Textile materials with good soil-release and draping properties were prepd. by applying a soil-release compn. to the material by adding and subsequently passing a gas, e.g. air, through the textile material to remove soil-release compn. from the interstices of the textile material. Thus, 65:35 polyester-rayon blend was padded with an aq. mixt. of dimethylolethyleneurea, (dihydroxyethylene) dimethylolurea, Et acrylate-acrylic acid-sodium acrylate copolymer, catalyst MX (MgCl2.6H2O), polyethylene glycol nonylphenyl ether, softeners, and hand-building agents. The fabric which had 50% wet pickup was then passed over a narrow slot perpendicular to the direction of fabric travel(vacuum gage reading .sim.5 in. Hg) to reduce the liq. content to .sim.30%. The fabric was dried and cured at 325.deg.F for .sim.15 min to produce a treated fabric which had soil-release value 3.8 after 5 washes and 2.5 after 10 washes (1 = no stain removal and <math>5 = complete stain removal) compared with 3.2 and 3.1, resp., for a fabric treated similarly, but with no vacuum extn. 2 Other fabrics were similarly prepd.

- IC D06M
- CC 39-10 (Textiles)
- ST treatment textile soil release; liq removal treated textile; vacuum extn treated textile
- IT Vacuum

(removal of excess soil-release finishing agents by, in

textiles, for improved hand and abrasion resistance) ΙT Textiles Polyester fibers Rayon, uses and miscellaneous RL: USES (Uses) (soil-release finishing of, vacuum extraction of excess finishing agents in, for improved hand and abrasion resistance) L10 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1972:128756 CAPLUS DOCUMENT NUMBER: 76:128756 TITLE: Simultaneously and preferentially depositing compositions on a particular side of two textile fabrics Cain, James P.; Miller, James M. INVENTOR(S): Deering Milliken Researc Corp. PATENT ASSIGNEE(S): U.S., 5 pp. SOURCE: CODEN: USXXAM DOCUMENT TYPE: Patent LANGUAGE: Enalish FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE US 3634126 A 19720111 US 1969-857768 19690915 RITY APPLN. INFO.: US 1969-857768 19690915 PRIORITY APPLN. INFO.: Preferential deposition of compns. on both sides of 2 fabrics comprises impregnating 2 pieces of textile fabric with a 1st compn . (which may be different for each fabric) in a liq. carrier, contacting 1 side of 1 treated fabric with 1 side of the 2nd treated fabric in a contiquous relation, heating the contacting fabrics to remove carrier whereby the 1st compn. is concd. at or near the surfaces of the 2 fabrics, sepg. the 2 fabrics, impregnating the fabrics with a 2nd compn. in a lig. carrier, contacting the 2 fabrics in continuous relation so that the sides of the 2 fabrics which were previously in contact with each other are now the exposed surfaces, and heating the contacting fabrics to remove liq. carrier whereby the 2nd compn. is concd. at or near the exposed surfaces of the 2 fabrics. In an example, 2 samples of a 65:35 poly(ethylene terephthalate)-cotton blend fabric are padded with 200 parts of a 40:60 Et acrylate-Bu acrylate emulsion contq. N-methylolacrylamide emulsion (Rhoplex K-3) 2-3, 70:30 Et acrylate-acrylic acid copolymer [ **25085-35-2**] 12, wetting agent 2, and water 300 parts. The samples are placed back to back in a pin dryer and heated in a hot air oven at 100.deg. for 3 min. with the acrylic polymer migrating to each face. The 2 fabrics are immersed in a 2nd emulsion [dihydroxydimethylolethyleneurea (as 50% soln.) 18, Zn(NO3)2.6H2O 3.2, ethoxylated nonylphenol 0.2, and polyethylene softener 3%], pinned face to face on a pin dryer and dried at .sim.110.deg. for 3 min. The fabrics have abrasion-resistant acrylic coating on the face and durable-press

resins on the back surface.
IT 25085-35-2 30586-88-0 33438-19-6

RL: USES (Uses)

(abrasion-proofing cotton-polyester textiles by,
with simultaneous durable-press finishing)

RN 25085-35-2 CAPLUS

CN 2-Propenoic acid, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME)

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CM 1

CRN 140-88-5 CMF C5 H8 O2

CM 2

CRN 79-10-7 CMF C3 H4 O2

RN 30586-88-0 CAPLUS

CN 2-Propenoic acid, butyl ester, polymer with N-(hydroxymethyl)-2-propenamide and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 924-42-5 CMF C4 H7 N O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{HO-} \, \text{CH}_2 - \text{NH-} \, \text{C-} \, \text{CH} = \!\!\!\! = \!\!\!\! \text{CH}_2 \end{array}$$

CM 2

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 107-13-1 CMF C3 H3 N

$$H_2C = CH - C = N$$

KOROMA EIC1700

```
RN
     33438-19-6 CAPLUS
CN
     2-Propenoic acid, butyl ester, polymer with ethyl 2-propenoate and
     N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)
     CM
          1
     CRN 924-42-5
     CMF C4 H7 N O2
HO-CH_2-NH-C-CH=CH_2
     CM
          2
     CRN
        141-32-2
     CMF C7 H12 O2
      0
n-BuO-C-CH=CH2
     CM
          3
         140-88-5
     CRN
     CMF C5 H8 O2
EtO-C-CH=CH2
IC
     B44D
    117068000
NCL
CC
     39 (Textiles)
     durable press textile finishing; abrasion resistance
ST
     textile finishing; acrylic finishing fabrics
ΙT
     Polyester fibers
     RL: USES (Uses)
        (abrasion-proofing and durable-press finishing of cotton and, process
        for simultaneous)
ΙT
     Textiles
        (abrasion-proofing and durable-press finishing of
        cotton-polyester blend, process for simultaneous)
IT
     Creasing
        (durable-press, of cotton-polyester blends, with simultaneous
        abrasion-proofing)
     25085-35-2 30586-88-0 33438-19-6
IT
     RL: USES (Uses)
        (abrasion-proofing cotton-polyester textiles by,
        with simultaneous durable-press finishing)
```

IT 1854-26-8

RL: USES (Uses)

 $(durable\mbox{-press finishing cotton-polyester} textiles \mbox{ by, with simultaneous abrasion-proofing)} \\$ 

L10 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1972:101149 CAPLUS

DOCUMENT NUMBER: 76:101149

TITLE: Textile-finishing heterocyclic condensation products INVENTOR(S): Buehler, Arthur; Schuetz, Hans U.; Maeusezahl, Dieter;

Harris, Melvin; Guth, Christian

PATENT ASSIGNEE(S): Ciba-Geigy A.-G.

SOURCE: Patentschrift (Switz.), 5 pp. Addn. to Swiss 480,488

(See Ger. 1,803,087, CA 71;114108n).

CODEN: SWXXAS

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.		DATE	APPLICATION NO.	DATE			
	CH 508776	A	19710615	CH 1968-508776	19680918			
				CH 1968-865369				
PRIC	RITY APPLN. INFO.	:	CH	1969-8653	19680918			
AB				iles comprise ami	noplast,			
	softener, copoly							
	chloride-monoethanolamine-thiourea condensate (I) [25155-75-3], and							
					ion resistance, but			
	greater crease recovery angle. Thus, mercerized, bleached cotton poplin was treated in pad liquor comprising aminoplast precondensate of a							
	<pre>mixt. of dimethylethylenethiourea (II) [34447-11-5] and Me ether of a polymethylolated melamine, softener of stearic acid</pre>							
	alkanolamide modified Me ester of a highly methylolated melamine, Bu							
	<pre>acrylate-vinylidene chloride-N-methylolacrylamide -calcium acrylate copolymer, wetting agent of</pre>							
	nonylphenol-ethylene oxide condensate, fluoroesent whitener III, I, and							
	MgCl2.6H2O. The finished <b>fabric</b> had tenacity 72%,							
	abrasion resistance 88%, and crease recovery angle (dry) 120							
				, for an unfinish				
ΙT	9065-58-1	·						
	RL: USES (Uses)				•			
	(in soil-rele	ase fi	nishing of cott	on textiles)				
RN	9065-58-1 CAPLU	-						
CN				r with calcium di				
		ne and	N-(hydroxymeth	yl)-2-propenamide	(9CI) (CA INDEX			
	NAME)							

CM 1

CRN 6292-01-9

CMF C3 H4 O2 . 1/2 Ca

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1/2 Ca

CM

CRN 924-42-5 CMF C4 H7 N O2

CM3

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-} \end{array}$$

CM

CRN 75-35-4 CMF C2 H2 C12

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Cl-C-Cl} \end{array}$$

IC D06M

CC 39 (Textiles)

textile finish; heterocyclic finish textile; soil release finish; cotton ST textile finish; cyanuric chloride finish; thiourea finish; crease recovery finish; wrinkle resistance finish; dimethylol ethylenethiourea finish; melamine methylol finish; acrylate copolymer finish

ΙT Softening agents

Wetting agents

Aminoplasts

RL: USES (Uses)

(in soil-release finishing of cotton textiles)

IT Creaseproofing

(of cotton textiles, in soil-release finishing)

```
ΙT
     Textiles
        (soil-release finishing of cotton, by heterocyclic condensation
     1,3,5-Triazine-2,4,6-triamine, hydroxymethyl derivs., methyl ether,
IT
        polymers with dimethylethylenethiourea
     2-Imidazolidinethione, dimethyl-, polymers with hydroxymethylated melamine
        methyl ethers
     Octadecanamide, hydroxyalkyl derivs., reaction products with
        hydroxymethylated melamine
     RL: USES (Uses)
        (in soil-release finishing of cotton textiles)
     7786-30-3, uses and miscellaneous 9016-45-9 9065-58-1
ΙT
                  25155-75-3
     23730-61-2
     RL: USES (Uses)
        (in soil-release finishing of cotton textiles)
L10 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2003 ACS
                         1972:73733 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         76:73733
                         Preparation of diazonium salt-monomer adducts
TITLE:
                         Horiguchi, Seijiro; Nakamura, Michie
INVENTOR(S):
PATENT ASSIGNEE(S):
                         Dainichiseika Color and Chemicals Manufg. Co., Ltd.
SOURCE:
                         Jpn. Tokkyo Koho, 27 pp.
                         CODEN: JAXXAD
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                  KIND DATE
     PATENT NO.
                                          APPLICATION NO. DATE
     JP 46007827 B4 19710226 JP 19671100
Polymers were prend in the Table
                                                            19671109
     Polymers were prepd. in the presence of an aromatic diazonium salt, and
AB
     the aromatic residues linked to the polymer chain were subjected to diazo
     coupling to give abrasion, wash, and solventfast colorants for
     textiles (polyester, acrylics, cotton), paper, leather, wood,
     metal, rubber, plastic, detergent, ink, and paint. For example,
     acrylamide (I) [79-06-1] was polymd. in the presence of diazotized
     m-(3-hydroxy-2-naphthamido)aniline (II) [4880-11-9] (stabilized with
     ZnCl2) and TiCl3 and the polymer was coupled with diazotized
     3-amino-4-methoxybenzamide (III) [17481-27-5] to give a polymeric colorant
     which was directly used as a colorant or subjected to further
     modification, e.g., condensation with melamine [108-78-1] and formaldehyde
     [50-00-0] followed by methylolation. Emulsion polymn. of Bu
     acrylate [141-32-2], vinyl acetate [108-05-4], vinylidene chloride
     [75-35-4], and I in the presence of K2S2O8 and the colorant prepd. gave a
     printing paste. Other monomers used for prepn. of the polymeric colorants
     were, e.g., N-methylmethylolacrylamide [34233-96-0],
     methacrylamide [79-39-0], glycidyl acrylate [106-90-1],
     2-hydroxyethyl acrylate [818-61-1], Me methacrylate
     [80-62-6], glycidyl methacrylate [106-91-2], Bu glycidyl
     itaconate [34230-92-7], and 4,6-bis(N-butoxymethylamino)-2-vinyl-s-
     triazine [34233-97-1]. Amines also used for the diazotized component
     were, e.g. m-(acetoacetamido)aniline [34233-98-2], N-(acetoacetyl)-4-
     aminophthalimide [34233-99-3], 5-hydroxy-1-naphthylamine [83-55-6], and
     1-(p-aminopheny1)-3-methyl-5-pyrazolone [6402-08-0]. The amines used for
     the coupling reactions were, e.g., 2-nitro-4-chloroaniline [89-63-4],
     1-aminoanthraquinone [82-45-1], 2-(ethylsulfonyl)-5-trifluoromethylaniline
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[382-85-4], 2',3-dimethyl-4-aminoazobenzene [97-56-3], 2-aminobiphenyl

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[90-41-5], and 2-benzamido-4-chloro-5-methoxyaniline <math>[34234-01-0].
IΤ
     9003-05-8 9011-14-7 25014-12-4
     25067-05-4 26022-14-0 26374-91-4
     35560-51-1 35560-54-4
     RL: USES (Uses)
        (diazonium salt-modified, colorants from)
     9003-05-8 CAPLUS
RN
     2-Propenamide, homopolymer (9CI) (CA INDEX NAME)
CN
     CM
          1
     CRN 79-06-1
     CMF C3 H5 N O
    0
H_2N-C-CH=CH_2
     9011-14-7 CAPLUS
RN
     2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX
CN
     NAME)
     CM
          1
     CRN 80-62-6
     CMF C5 H8 O2
 H<sub>2</sub>C
     0
   Me-C-C-OMe
RN
     25014-12-4 CAPLUS
CN
     2-Propenamide, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)
     CM
          1
     CRN
         79-39-0
     CMF C4 H7 N O
 H<sub>2</sub>C O
Me^-C^-C^-NH_2
RN
     25067-05-4 CAPLUS
     2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, homopolymer (9CI) (CA
     INDEX NAME)
     CM
          1
     CRN 106-91-2
     CMF C7 H10 O3
```

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$$\begin{tabular}{c|cccc} O & CH_2 \\ \hline & & & \\ CH_2-O-C-C-Me \\ \end{tabular}$$

RN 26022-14-0 CAPLUS

CN 2-Propenoic acid, 2-hydroxyethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1 CMF C5 H8 O3

RN 26374-91-4 CAPLUS

CN 2-Propenoic acid, oxiranylmethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 106-90-1 CMF C6 H8 O3

RN 35560-51-1 CAPLUS

CN 2-Propenamide, N-(hydroxymethyl)-N-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 34233-96-0 CMF C5 H9 N O2

RN 35560-54-4 CAPLUS

CN Butanedioic acid, methylene-, 1-butyl 4-(oxiranylmethyl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 46844-16-0 CMF C12 H18 O5

```
H2C O
               CH2-O-C-CH2-C-C-OBu-n
    D06P; C09B; B29D; C08K
IC
    40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
CC
    Section cross-reference(s): 35
ST
    polymeric azo dye; printing textile; color paper; leather color;
    wood paint; metal paint; rubber color; plastic color; detergent color;
     coupling polymer; ink color; diazonium polymn catalyst
ΤT
    Textile printing
       (paint for, polymeric azo dye compn.)
TT
    Dyes, azo
       (polymeric)
    83-55-6 4880-11-9 6402-08-0 34233-98-2 34233-99-3
IT
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (coupling of, with diazonium salt-modified polymers)
ΙT
    9003-05-8 9011-14-7 25014-12-4
    25067-05-4 26022-14-0 26374-91-4
    35560-51-1 35560-54-4 35560-55-5
    RL: USES (Uses)
       (diazonium salt-modified, colorants from)
    16048-40-1 27165-22-6 31599-32-3 32975-26-1 35472-80-1
ΙT
                35472-85-6
    35472-84-5
    RL: USES (Uses)
       (polymers modified by, dyes from)
L10 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2003 ACS
                     1969:404265 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                       71:4265
TITLE:
                       Porous elastomeric foams
INVENTOR(S):
                       Shrimpton, Ronald H.; Wharton, Roger S.
PATENT ASSIGNEE(S):
                      Dunlop Co. Ltd.
SOURCE:
                       S. African, 10 pp.
                       CODEN: SFXXAB
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO.
                 KIND DATE
                                        APPLICATION NO. DATE
                                        _____
    _______
    ZA 6804078
                         19681114
PRIORITY APPLN. INFO.:
                                      GB
                                                         19670705
    An air-permeable fabric or covering material consists of a layer of
    compressed porous elastomeric foam having an abrasion-resistant
    finish, such as a textile flock, on at least 1 surface. Thus, a
    composite assembly (consisting of two 8 mm. layers of reticulated
    polyester foam of d. 2 lb./ft.3 with an oven-weave square woven
    poly(ethylene terphthalate) (Terylene) fabric of wt. 2.5 oz./yd.2 and 16
    ends/in. between them) was placed flat platens with 0.90 in. thick edge
    spacer bars and pressed 10 sec. at 220.degree./10 psi. The resulting
    compressed sheet was then spread with an 0.015 in. thick layer of frothed
    acrylate adhesive and flocked electrostatically with 1 mm. of 1.5
```

denier nylon flock. The adhesive was dried and cured 4 min. at

120.degree.. The product was a soft, flexible material with good porosity and an attractive hard wearing surface, and was suitable for use in the

```
manuf. of slipper uppers. In another example, a 16 mm. layer of
     reticulated polyester foam was flame laminated to a knitted cotton fabric
     base of wt. 5 oz./yd.2, preheated to 200.degree., passed through embossing
     rolls at 240.degree., dyed with a dye suitable for use
     on polyurethanes, washed, dried, and passed through a reverse roller
     coating machine, where pigmented thermoplastic polyurethane was deposited
     on the raised portion of the embossed pattern. The product was passed
     through a short ir tunnel, fusing the polyurethane pattern and allowing a
     predetd. sink into the foam structure. The product was suitable for use
     in car seat covers. A similar product was prepd. from a polyether foam
     having a cotton backing bonded to the foam with a polyethylene net, and an
     abrasion resistant layer consisting of a poly(vinyl chloride) plastisol.
     Acrylate latex and polyester flock are also claimed for use as
     abrasion resistant layers. Elastomeric polyurethane foams can also be
     used. These materials have excellent porosity and abrasion resistance.
CC
     37 (Plastics Fabrication and Uses)
ST
     foam fabric laminates; fabric foam laminates; laminates foam fabric
ΙT
     Leather substitutes
     Upholstery
        (cellular synthetic rubber)
ΙT
     Rubber, synthetic
        (cellular, for upholstery)
IT
     Rubber, urethane, uses and miscellaneous
        (cellular, laminates)
ΙT
     Polyesters, uses and miscellaneous
     RL: TEM (Technical or engineered material use); USES (Uses)
        (cellular, laminates with synthetic fibers)
ΙT
     Fiber, synthetic
     RL: USES (Uses)
        (ethylene polymer, laminates with plastics)
IT
     Textiles
        (laminated, with plastics)
ΙT
     Fiber, polyester, uses and miscellaneous
     RL: USES (Uses)
        (laminates with polyester foams)
ΙT
     Plastics, cellular
     RL: USES (Uses)
        (laminates with synthetic fibers)
    Ethers
ΙT
     RL: USES (Uses)
        (poly-, cellular, laminates with synthetic fibers)
ΙT
        (slipper uppers, synthetic rubber foams for)
IΤ
     Nylon, uses and miscellaneous
     RL: USES (Uses)
        (synthetic rubber laminates contg.)
     9002-88-4, uses and miscellaneous
TT
     RL: USES (Uses)
        (fibers, laminates with plastics)
     9002-86-2, uses and miscellaneous
TΤ
     RL: USES (Uses)
        (laminates with synthetic fibers)
L10 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2003 ACS
                         1965:91649 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         62:91649
ORIGINAL REFERENCE NO.: 62:16444c-g
                         Coating of glass fiber fabrics
TITLE:
INVENTOR(S):
                         Berns, Harry
```

PATENT ASSIGNEE(S):

United Merchants and Manufacturers, Inc.

SOURCE:

4 pp. Patent

DOCUMENT TYPE:

Unavailable

LANGUAGE:

Unava

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
US 3175988 19650330 US 19610217

A coating compn. for glass fiber fabrics (I), giving abrasive-resistant finishes, consists of an aq. dispersion of an aq. emulsion of an Et acrylate-Me methacrylate copolymer (II) 5-30, polyethylene glycol bis(2-ethylhexoate) (III) 20, butoxyethyl phthalate (IV) 0.2-3, a polyethylene glycol softener (V) 1-10, and the balance to 100 parts H2O. From 1/2 to 2 parts of an aq. soln. of a penetrating agent such as a sulfonated aliphatic polyester (Anionyx R.W.) (VI) may be added to improve the penetration of the coating compn. into the glass fiber. The coating compn. may also contain 2-5 parts of a combined softener and H2O repellent such as a Zr synthetic wax complex known as Impregnole FH (VII). Up to 25% pigments may be added in colored coatings. In the treatment of unfinished I, the sizing materials, such as sucrose, gelatin, or starch, are removed by heating to .gtoreg.650.degree.F.; I is then treated with a Werner-type reactive Cr complex (Quilon) such as stearatochromic chloride (VIII). These products are described in U.S. 2,273,040. Thus, to produce a colorless coating on an unfinished I, a mixt. was prepd. of 24 parts of a 45% emulsion of II, 14 parts of III, 2 parts of IV, 56 parts H2O, and 4 parts of V (mol. wt. 400). The size was removed from I by passing it through an oven at .gtoreq.650.degree.F.; the cleaned fabric was run through a pad bath contg. the above mixt., dried at 250.degree.F. for 1.5 min. and then run through a pad bath contg. 2 parts VIII, 2 parts V, and 96 parts H2O. After drying it at 250.degree.F. for 1.5 min., a white I was obtained having a soft hand and being substantially free from crocking. To coat and color a finished I, a mixt. was prepd. from 12 parts of a 45% emulsion of II, 7 parts of III, 1 part of IV, 76 parts H2O, 3 parts of V, 8 parts of a dispersed phthalocyanine blue pigment, 75 parts of VI, and 3.5 parts of a 4% aq. soln. of VII. The finished I was passed through a pad bath contg. the above mixt. and dried at 250.degree.F. for 2 min. The resulting fabric was deep blue, substantially free from crocking, and had a soft hand. Cf. U. S. 2,273,040 (CA 36, 35945).

NCL 260029600

CC 47 (Textiles)

IT Glass, europium(II)-contg.

(fabrics, coating with Et acrylate-Me methacrylate polymer-polyethylene glycol bis(2-ethylhexoate) emulsions for abrasion resistance)

IT Coating(s)

(of glass fabrics with Et acrylate-Me methacrylate polymer-polyethylene glycol bis(2-ethylhexoate) emulsions for abrasion resistance)

IT Softening agents

(polyethylene glycols, Et acrylate-Me methacrylate polymer-polyethylene glycol bis(2-ethylhexoate) emulsions contg., glass fabric coating with)

IT Acrylic acid, ethyl ester polymers with Me methacrylate (coating with polyethylene glycol bis(2-ethylhexoate) and, on glass fabric)

ΙT Glycols, polyethylene, bis(2-ethylhexoates) (emulsions with Et acrylate-Me methacrylate polymers, glass fabric coating with abrasion -inhibiting)

IT Methyl methacrylate polymers, with ethyl acrylate (emulsions with polyethylene glycol bis-(2-ethylhexanoate), glass fabric coating with)

ΙT 25322-68-3, Glycols, polyethylene (emulsions with Et acrylate-Me methacrylate polymers, glass fabric coating with abrasion -inhibiting)

ΙT 149-57-5, Hexanoic acid, 2-ethyl-(esters of, with polyethylene glycols, emulsions with Et acrylate-Me methacryoate polymers, glass fabric coating with)

L10 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1964:3819 CAPLUS

DOCUMENT NUMBER: 60:3819

ORIGINAL REFERENCE NO.: 60:714f-h,715a

Finishing compositions for glass fibers

PATENT ASSIGNEE(S): Owens-Corning Fiberglas Corp.

5 pp. SOURCE: DOCUMENT TYPE: Patent Unavailable LANGUAGE:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE CD DATE \_\_\_\_\_\_ 19631002 GB 938642 GB

PRIORITY APPLN. INFO.: US 19610224

Fibrous glass materials are made abrasion-, wrinkle-, and moisture-resistant, and receptive to dyes and pigments, by treating them with finishing compns. (I) consisting of 3-15% acrylic resin, 3-15% epoxidized soya oil, and 0.01-0.1% emulsifier. Lubricants and dyes can be added to the I together with up to 2.0% of a coupling agent, such as an organosilane. Alternatively, the material can be treated with these substances or up to 2.0% of a coupler, such as a Werner complex after treatment with the I. Good anticrocking qualities can be obtained by using chlorosilanes in the finish or as an after-treatment. The I can be formulated by mixing 9.9% of an epoxidized soya oil contg. 4 oxirane groups per glyceride unit with 0.02 g. of alkyl aryl polyether alc. emulsifier and adding the mixt. in 4 equal parts to 9.9% of a nonionic emulsion of an Et acrylate-acrylic acid copolymer contg. 46% solids and having a pH of 2.8 and d. of 1.05, each portion being thoroughly admixed before the next addn. Equal parts of water and the epoxy-emulsifier acrylic mixt. are then mixed with agitation, and water is added to 100%. After weave setting and removal of forming size by heating the fabric to 1200.degree.F., it is impregnated with 2-3.5% by wt. of the fabric of the above I and cured in an oven at 300-50.degree.F. Fabric treated with the above finish was tested for abrasion resistance by placing a 1-sq. yard sample with a 1.5-in. hem in a modified Bendix washer. The 4 fins of the washer were covered with 9-in. widths of medium-grit emery cloth, and the washer was run continuously, with the exception of inspections at 15 min. intervals, until 5 holes were worn completely through the edge of the sample hem. The time taken to achieve this degree of abrasion, averaged over 2 samples, was 6 hrs. An av. abrasion time for a fabric finished with a conventional poly(Et acrylate )-polytetrafluoroethylene finish was 3.5 hrs. Fastness to crocking by

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AATCC standard test (8-1957) for the latter fabric and a fabric finished
     with the I were rated as classes 3 and 5, resp.
TΤ
     9003-01-4, Acrylic acid, homopolymer
        (emulsions of epoxidized soybean oil and, glass fiber and fabric
        finishing with dye and pigment-receptive)
     9003-01-4 CAPLUS
RN
CN
     2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)
     CM
     CRN
         79-10-7
     CMF C3 H4 O2
   0
HO-C-CH=CH2
ΙC
    C08F
CC
     47 (Textiles)
ΙT
     Soybean oil
        (epoxidized, emulsions with acrylic resins, glass fiber finishing with
        dye and pigment-receptive)
     Glass, europium(II)-contg.
TT
        (fabrics and fibers, finished with acrylic resin-epoxidized soybean oil
        emulsions, dye- and pigment-receptive)
IT
     Sizing
        (of glass fibers and fabrics with acrylic resin-epoxidized soybean oil
        emulsions for dye and pigment receptivity)
ΙT
     Dyeing
        (properties, of glass fibers and fabrics, improvement by acrylic
        resin-epoxidized soybean oil emulsions)
IT
     9003-01-4, Acrylic acid, homopolymer
        (emulsions of epoxidized soybean oil and, glass fiber and fabric
        finishing with dye and pigment-receptive)
ΙT
     9002-84-0, Ethylene, tetrafluoro-, homopolymer
        (glass fabric finishing with Et acrylate polymer and)
L10 ANSWER 32 OF 32 CAPLUS COPYRIGHT 2003 ACS
                        1959:102821 CAPLUS
ACCESSION NUMBER:
                        53:102821
DOCUMENT NUMBER:
ORIGINAL REFERENCE NO.: 53:18499h-i,18500a-d
                        Decreasing the decolorization caused by
TITLE:
                        abrasion of paper or textiles
                        printed with pigment dyes
                        Lawton, Elliott J.; Woodruff, Howard C.
INVENTOR(S):
                        General Electric Co.
PATENT ASSIGNEE(S):
                        Patent
DOCUMENT TYPE:
                        Unavailable
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                          APPLICATION NO. DATE
     PATENT NO. KIND DATE
                     ----
     _____
     DE 950061
                                      DE
                           19561004
     Paper or textiles made from synthetic or natural fibers is printed with
AB
     pigments in a resin binder, which is then polymerized by irradiation with
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high-energy electrons; this produces rapid fixation of the binder, thus

preventing smearing of the colors during production of the printed materials. Suitable binders contain emulsions, dispersions, or solns. of monomers which can be polymerized by high-energy electrons, such as styrene, acrylonitrile, Et acrylate, Bu acrylate (I), diethylene glycol maleate, or adipate. Various mixts. of these monomers or mixts. with other monomers or cross-linkable polymers, e.g. polyesters resins containing unsatd. acids, such as maleic, fumaric, or itaconic acid, butadiene, chlorobutadienes, polyamides, silicone rubbers or resins, or polyethylene or its chlorinated or sulfochlorinated derivs., are also applicable. Insol. dyes or pigments, such as phthalocyanine blue or green, cadmium red, benzidine yellow, red ochre, Prussian blue, chrome green, produce the color. satd. alkyd resin (1-35%), modified with natural oils if desired, can be used as a carrier for the pigment in the oil phase of the aq. emulsion used for printing. Ethylcellulose, cellulose acetate, or modified phenol-HCHO resins can also be used for this purpose. In general, to prep. such a printing paste, a 3-15% soln. of an alkyd resin in toluene or light oil is emulsified with H2O by using an emulsifier such as K alum, Na2SO4, or (NH4)2SO4 in a colloid mill. An aq. suspension or dispersion of the electronpolymerizable material is then added, followed by an aq. dispersion of the pigment. To insure adequate mixing of some monomers, e.g. I, with carrier resin, these are first dissolved in 15-35 parts solvent, the soln. is emulsified with 20-80 H2O, and then mixed with 1-7 parts resin. The printing pastes then contain dry pigments 1-6, polymerizable binder 10-40, and carrier 40-70 parts, which in turn contains resin, solvent, and H2O as given above. After application to cloth, the H2O and solvent are driven off by passing the material over heated rollers or through an oven at 75-150.degree.. The whole surface of the textile is then submitted to approx. 1-5 .times. 106 r. irradiation by electrons of >0.25 Mev. or more, thus polymerizing the binder and decreasing the tendency of the colors to run by about 10-20 fold as compared with untreated samples. Cf. U.S. 1,991,236; Brit. 775,874; Slater, C.A. 42, 7155d.

NCL 8N; 1-01

CC 25 (Dyes and Textiles Chemistry)

IT Fibers, synthetic

(printing on, with pigments in resin binders, polymerizing and fixing by high-energy electrons for fastness to abrasion)

IT Electrons

(resin-binder polymerization and fixation by high-energy, for abrasion fastness in pigment printing)